JACOBS®

Financial Strategy and Sustainability Study

Final Report

January 9, 2020

Southeastern Colorado Water Conservancy District

Executive Summary

The Southeastern Colorado Water Conservancy District (SECWCD) contracted with Jacobs in January 2019 to prepare this Financial Strategy and Sustainability Study (Study). It is the first formal, consultant-led rate study undertaken by the District since its inception. The primary purpose of the Study was to determine adjustments to SECWCD's rate-derived revenues to ensure the future financial health of the organization and to meet operational commitments to the Fryingpan-Arkansas Project (Fry-Ark Project) and the SECWCD enterprises. The Study scope included forecasting the water system revenue requirements for a 10-year period, estimating the cost to provide service to SECWCD's two customer classes (Municipal and Industrial class, and Irrigation class) and developing a schedule of water rates and surcharges that equitably recover such costs from the respective customer classes. The Study process included a series of workshops with SECWCD's Executive Committee, which facilitated understanding, consensus-building, and decision-making.

SECWCD has historically maintained a strong financial position to face current financial requirements and potential future needs; however, recent amendments to its contract with the U.S. Bureau of Reclamation, the need to repair aging infrastructure, more stringent federal and state environmental regulations, and new capital investments have increased SECWCD's cost to provide services to its customers.

A detailed cost-of-service (COS) analysis was performed as part of this Study to determine the actual costs of serving individual customer classes. Two cost allocation methods were used—uniform cost allocation and split cost allocation—to determine proposed rates that are generally reflective of SECWCD's costs of service. In addition, an ability-to-pay analysis was performed for the Irrigation customer class using standard U.S. Bureau of Reclamation Irrigation Payment Capacity guidelines. The proposed rate adjustments in this Study remain below the calculated Irrigator ability-to-pay.

SECWCD's current water rates and surcharges are provided in Table ES-1.

Table ES-1. Current Water Rates and Surcharges

Description	Current Water Rate and Surcharges ($/acre-foot)					
	Current Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Current Total Charge ($)
Project Water Sales						
Irrigation	7.00	0.50	0.75	0.75	--	9.00
Municipal	7.00	0.50	1.50	0.75	--	9.75
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	7.00	0.50	0.75	0.75	2.60	11.60
Municipal used for Well Augmentation	7.00	0.50	1.50	0.75	2.60	12.35
Storage Charges						
Winter Water Storage	2.80	0.25	--	0.75	--	3.80
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Return Flows	6.00	0.50	--	0.75	--	7.25

The focus of this Study was SECWCD's Water Rate (i.e., $7.00 Project Water Sales, $2.80 or $0.00 Storage Charge, $0.00 If-and-When Storage, and $6.00 Project Return Flows) identified in the first column of the Water Rate and Surcharges Table ES-1. The District also charges a series of surcharges; each with a specific purpose and previously adopted by the Board. The total charge identified in the last column of Table ES-1 is the actual rate per acre-foot of water charged to the customer. Surcharges were not studied in detail because they were instituted by previous Board action and remain unchanged.

The timing and magnitude of potential Water Rate increases were considered for implementation. Several alternatives were evaluated, with the following three analyzed in detail:

- Option 1—Aggressive Increase (1-year implementation): Water rates would immediately increase to the calculated cost of service in 2020 and remain flat thereafter ("one and done"). Storage charges for carryover project water would phase-in over a 4-year period (from 2021 through 2024) following a 1-year implementation delay.
- Option 2—Moderate Increase (5-year implementation): Water rates would be phased into the calculated cost of service over five-year period and remain flat thereafter. Storage charges for carryover project water would phase-in over a 4-year period (from 2021 through 2024) following a 1-year implementation delay. A 5 percent annual increase would also be applied to this option in the first 5 years of the proposed water and storage rates (from 2020 through 2024).
- Option 3—Gradual Increase (10-year implementation): Water rates would be smoothed over the 10-year period with approximately proportionate annual increases. A 5 percent annual increase would also be applied to all 10 years of forecasted water and storage rates (from 2020 to 29).

It should be noted that the 10-year Forecast Period does not obligate the SECWCD Board to accept a rate for the entire 10-year period. The Board sets a rate for 1 year only, defined as the Approved Rate or Rate Year. A 3-year period, defined as the Rate Period, was incorporated into this study to align with the SECWCD Business Plan of programs, projects and actions anticipated from 2020 to 2022, and with the SECWCD's intent to perform a cost of service study every 3 years.

Current and proposed rate options for the 10-year Forecast Period are shown in Tables ES-2 through ES-4. Note that these are proposed Water Rates only (for replacement of the current Water Rate) and excluding all surcharges. The total charge to the customer includes both the water rate and additional surcharges. Further evaluation of the surcharges is recommended in a future cost of service analysis.

Option 1 results in the lowest rate by the end of the Forecast Period, Option 2 the next highest rate, and Option 3 the highest rate by the end of the Forecast Period. All options include a one-year delay followed by a phase-in of the rate for carry-over project water, recognizing that customers need time to prepare for water storage rate increases, and to adjust their storage requirements and individual budgets.

The proposed rates and current rate structure allow the District to provide forward guidance to its customers, as simulated in in the Jacobs financial model which estimates revenues from projected rates through 2029. The first year of the proposed rate schedule should be considered "approved" rate pricing (if adopted by the Board during the annual rate setting process). The second and third year of the rate schedule should be considered "advisory" rate pricing and will become firm following Board approval during the annual rate setting process.

In the following tables, the first 3 years are highlighted in green to represent the Rate Period for the Board's consideration. The dark green color highlights the Rate Year, while the light green highlights the Advisory Years. Remaining years in the rate schedule should be considered "forecasted" for customer planning purposes only, but subject to change in subsequent rate-setting or COS study years (anticipated every 3 years). SECWCD also intends to request formal Board approval of rates each year. A full cost of service rate study that includes a more detailed examination of SECWCD's financial plan and rates will be prepared every 3 years.

Table ES-2. Current and Proposed Rates — Option 1 — Aggressive

Description	Current ($/ac-ft)	2020 ($/ac-ft)	2021 ($/ac-ft)	2022 ($/ac-ft)	2023 ($/ac-ft)	2024 ($/ac-ft)	2025 ($/ac-ft)	2026 ($/ac-ft)	2027 ($/ac-ft)	2028 ($/ac-ft)	2029 ($/ac-ft)
Project Water Sales											
Irrigation	7.00	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14
Municipal	7.00	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	7.00	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14
Municipal used for Well Augmentation	7.00	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
Storage Charges											
Winter Water Storage[a]	2.80	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72
Carry-Over Project Water	--	--	2.97	5.93	8.90	11.86	11.86	11.86	11.86	11.86	11.86
If-and-When Storage											
In District	--	--	--	--	--	--	--	--	--	--	--
Out of District	--	--	--	--	--	--	--	--	--	--	--
Aurora	--	--	--	--	--	--	--	--	--	--	--
Project Water Return Flows											
Irrigation Return Flows	6.00	16.18	16.18	16.18	16.18	16.18	16.18	16.18	16.18	16.18	16.18
Municipal Return Flows	6.00	18.78	18.78	18.78	18.78	18.78	18.78	18.78	18.78	18.78	18.78

[a] $2.80 transferred to Reclamation

Note:

$/ac-ft = dollar(s) per acre-foot

Table ES-3. Current and Proposed Rates — Option 2 — Moderate

Description	Current ($/ac-ft)	2020 ($/ac-ft)	2021 ($/ac-ft)	2022 ($/ac-ft)	2023 ($/ac-ft)	2024 ($/ac-ft)	2025 ($/ac-ft)	2026 ($/ac-ft)	2027 ($/ac-ft)	2028 ($/ac-ft)	2029 ($/ac-ft)
Project Water Sales											
Irrigation	7.00	8.64	10.37	12.17	14.08	16.06	16.06	16.06	16.06	16.06	16.06
Municipal	7.00	9.08	11.27	13.57	15.98	18.51	18.51	18.51	18.51	18.51	18.51
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	7.00	8.64	10.37	12.17	14.08	16.06	16.06	16.06	16.06	16.06	16.06
Municipal used for Well Augmentation	7.00	9.08	11.27	13.57	15.98	18.51	18.51	18.51	18.51	18.51	18.51
Storage Charges											
Winter Water Storage[a]	2.80	3.41	4.05	4.72	5.43	6.19	6.19	6.19	6.19	6.19	6.19
Carry-Over Project Water	--	--	1.28	3.92	8.05	13.77	13.77	13.77	13.77	13.77	13.77
If-and-When Storage											
In District	--	--	--	--	--	--	--	--	--	--	--
Out of District	--	--	--	--	--	--	--	--	--	--	--
Aurora	--	--	--	--	--	--	--	--	--	--	--
Project Water Sales used for Well Augmentation											
Irrigation Return Flows	6.00	8.44	11.01	13.70	16.53	19.47	19.47	19.47	19.47	19.47	19.47
Municipal Return Flows	6.00	8.99	12.13	15.42	18.88	22.49	22.49	22.49	22.49	22.49	22.49

[a] $2.80 transferred to Reclamation

Table ES-4. Current and Proposed Rates — Option 3 — Gradual

Description	Current ($/ac-ft)	2020 ($/ac-ft)	2021 ($/ac-ft)	2022 ($/ac-ft)	2023 ($/ac-ft)	2024 ($/ac-ft)	2025 ($/ac-ft)	2026 ($/ac-ft)	2027 ($/ac-ft)	2028 ($/ac-ft)	2029 ($/ac-ft)
Project Water Sales											
Irrigation	7.00	7.99	9.03	10.12	11.27	12.47	13.74	15.06	16.46	17.92	19.50
Municipal	7.00	8.22	9.50	10.85	12.26	13.75	15.31	16.95	18.66	20.47	22.31
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	7.00	7.99	9.03	10.12	11.27	12.47	13.74	15.06	16.46	17.92	19.50
Municipal used for Well Augmentation	7.00	8.22	9.50	10.85	12.26	13.75	15.31	16.95	18.66	20.47	22.31
Storage Charges											
Winter Water Storage[a]	2.80	3.11	3.43	3.76	4.11	4.49	4.87	5.28	5.71	6.16	6.65
Carry-Over Project Water	--	--	0.64	1.97	4.03	6.90	8.49	10.16	11.93	13.78	15.67
If-and-When Storage											
In District	--	--	--	--	--	--	--	--	--	--	--
Out of District	--	--	--	--	--	--	--	--	--	--	--
Aurora	--	--	--	--	--	--	--	--	--	--	--
Project Water Sales used for Well Augmentation											
Irrigation Return Flows	6.00	7.37	8.81	10.32	11.91	13.58	15.33	17.16	19.09	21.12	23.22
Municipal Return Flows	6.00	7.64	9.37	11.18	13.09	15.08	17.18	19.39	21.70	24.13	26.66

[a] $2.80 transferred to Reclamation

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Acronyms and Abbreviations

$/ ac-ft	dollar(s) per acre-foot
ac-ft	acre-feet (foot)
Board	Southeastern Colorado Water Conservancy District Board of Directors
CIP	Capital Improvement Plan
COS	cost-of-service
CWCB	Colorado Water Conservation Board
District	Southeastern Colorado Water Conservancy District
Fry-Ark	Fryingpan-Arkansas
FTE	full-time equivalent
FY	fiscal year
Hydroelectric Plant	James W. Broderick Hydropower Plant at Pueblo Dam
IGA	Intergovernmental Agreement
Jacobs	Jacobs Engineering Group Inc.
LOPP	Lease of Power Privilege
M&I	municipal and industrial
No.	number
O&M	operation and maintenance
OM&R	operation, maintenance, and replacement
PAYGO	pay-as-you-go
RAX	Extraordinary Expenditures and Additions
Reclamation	U.S. Bureau of Reclamation
ROY	Restoration of Yield
RRA	Reclamation Reform Act
SECWCD	Southeastern Colorado Water Conservancy District
Study	Financial Strategy and Sustainability Study
TABOR	TABOR Amendment known as the Colorado Tax Payer Bill of Rights
UCR	user charge revenue
WAE	Water Activity Enterprise

Definitions

Advisory Rate or Advisory Year—The second and third year of the proposed rate schedule should be considered advisory and will become firm following Board of Director approval in a future annual rate setting process.

Amendment 11—The eleventh amendment to the repayment contract Between the United States of America and the Southeastern Colorado Conservancy District (Contract Number 5-07-70-W0086, January 21, 1965, as amended), dated September 20, 2018.

Approved Rate or Rate Year—The first year of the proposed rate schedule should be considered the approved rate, if adopted by the Board of Directors in the annual rate setting process. The Board of Directors will only approve one year at a time.

Base Case—The Financial Plan scenario is referred to as the base case, which represents the most realistic scenario over the Forecast Period. The base case scenario includes operating conditions and assumptions that are realistic given currently available information.

Betterment—A Bureau of Reclamation term meaning "an improvement or upgrade of an existing asset that increases the size, capacity, or operating efficiency. A betterment may also extend the useful life of an asset."[1]

Capital Improvement—A non-recurring (typically one-time) investment by SECWCD in new or existing infrastructure, including new construction, expansion, renovation, betterment, or replacement projects, with a useful life of at least 10 years. Project costs can include the cost of land, engineering, architectural planning, and contract services needed to complete the project.

Capital Improvement Program (CIP)—A 20-year capital investment plan that encompasses SECWCD's annual expenditures on individual capital improvement projects.

Cost Share—A Bureau of Reclamation term, meaning "the contributions (monetary, in-kind, or both) provided by non-Federal entities or funding partners including work performed by non-Federal operating entities. Cost share is sometimes known as matching or matching funds."

Enterprise Fund—The District's Enterprise Fund (i.e., the Proprietary Funds) is for the purposes of this financial study also classified as a major fund. The Enterprise Fund is used to account for business-type activities. The principal revenue sources of the Enterprise Fund are charges to customers for sales and services, including water sales, storage charges, contracts for service, and electricity sales. Primary expenditures include expenses incurred as a result of providing services and producing and delivering goods in connection with the proprietary funds' principal ongoing operation. The Enterprise Fund has two separate Proprietary Funds (or subfunds): the Water Subfund and the Hydroelectric Subfund.

Financial Plan—Projects revenues, expenses, and capital costs to provide a 10-year (Fiscal Year [FY] 2020 to FY 2029) forecast of cash flows for each of the individual subfunds. The financial plan analysis is an essential step in the overall study process and establishes the revenue requirements, and basis for the subsequent COS and rate design.

Forecast Period—The 10-year period between FY 2020 and FY 2029 pertaining to this Financial Strategy and Sustainability Study.

Fry-Ark Project Contract or Contract—The contract for repayment of the costs, operation, maintenance, replacement, and betterment of the Fryingpan-Arkansas Project signed by the U.S. Bureau of Reclamation and the Southeastern Colorado Water Conservancy District in 1965, modified in 1982 and amended thereafter (Contract No. 5-07-70-W0086).

[1] United States Bureau of Reclamation. 2019. Reclamation Manual, Directives and Standards, FIN 07-23. September 8.

General Fund—The District General Fund is the primary operating fund of the District and is always classified as a major fund. The General Fund is used to account for all financial resources of the District except those required to be accounted for in a separate fund. Major revenue sources include property taxes and specific ownership taxes, and contractual revenue. Primary expenditures include general government and debt service. The General Fund has two subfunds: Fry-Ark Project Subfund and the District Operations Subfund.

Operating Mill Levy—The 0.35-mill property tax collected within the District boundaries for assistance in the operations of the District or General Fund.

Project—The Fryingpan-Arkansas Project, or Fry-Ark Project. A multipurpose trans-mountain, trans-basin water diversion and delivery project in Colorado.

Project Mill Levy—Also known as the contract tax or the 0.90-mill property tax specified in contract Between the United States of America and the Southeastern Colorado Water Conservancy District.

Project Reserve Fund—The cash reserve fund defined in and required by Amendment 11, which must be established to meet certain costs associated with the Project, including RAX, rehabilitation, Betterment, and unforeseen or unscheduled maintenance work. Project Reserve Fund monies are currently held in the Fry-Ark Project Subfund and may not be used for other SECWCD activities.

Rate Period—A 3-year period between FY 2020 and FY 2022 pertaining to this Financial Strategy and Sustainability Study.

RAX—A Bureau of Reclamation term, meaning “extraordinary expenditures,” as defined in Amendment 11.

Reclamation Reform Act (RRA)—The Reclamation Reform Act of 1982 defined and codified acreage limitations to agriculture. Project water users within SECWCD’s boundaries are required to file RRA forms with the District, prior to receiving an allocation of Project water. The reporting thresholds are 240 acres for qualified recipients or 40 acres to limited recipients and public entities. Qualified recipients over 960 acres and limited recipients over 640 acres require additional reporting.

Recurring Capital—A capital item but accounted for as an operations and maintenance expense (defined by generally accepted accounting principles as an expense item in excess of $5,000 with a future benefit) that is a frequent or infrequent recurring investment.

Revenue Requirement—The total revenue necessary to ensure proper operation and maintenance, development and perpetuation of the system, and preservation of SECWCD’s financial integrity.

Specific Ownership Tax—The specific ownership tax is a property tax that is levied in addition to sales taxes on motor vehicles and is paid annually when the vehicle is registered within a county.

Spilt Method—Considers the portion of operation and maintenance and certain capital expenses benefiting specific customers. A percentage of expenses is allocated to municipal and industrial and/or Irrigation customers to develop costs per acre-feet (ac-ft) for each customer type.

Study Period—A 13-year period beginning in fiscal year FY 2017 and ending in FY 2029 pertaining to this Financial Strategy and Sustainability Study.

Test Year—FY 2020 listed in the Financial Plan under the Base Case scenario.

Uniform Method—Divides the total costs of service by the total number of ac-ft for a resulting uniform cost per ac-ft for all users.

Winter Water—Stored irrigation water that would have been diverted to irrigation entities downstream of Pueblo Reservoir during the winter months, which is instead released during the following irrigation season.

1. Introduction

The Southeastern Colorado Water Conservancy District (SECWCD) contracted with Jacobs Engineering Group Inc. (Jacobs) in January 2019 to prepare this financial strategy and sustainability study (Study). The purpose of the Study is to forecast water system revenue requirements for a 10-year period, estimate the cost to provide service to SECWCD's two customer classes (Municipal and Industrial [M&I] and Irrigation) and to develop a schedule of water rates and fees that equitably recovers these costs from the respective customer classes. In doing so, Jacobs analyzed the current financial status of the Governmental (General Fund) and the Proprietary (Enterprise Fund), future financial needs, and fair and equitable cost allocation to provide rate and fee recommendations to the District Board of Directors (Board).

1.1 Scope of Services

Jacobs' scope of services consisted of the following major tasks:

- Initial Project Meeting
- Data Collection and Analysis
- Capital Improvement and Capital Project Plan
- Revenue Requirements Analysis
- Reserve Target Recommendations
- Cost-of-Service (COS) Analysis
- Rate Design Analysis
- Comparison of Rates and Financial Performance Measures
- Policy Recommendations
- Draft Report of Findings
- SECWCD Board Meetings
- Final Report and Presentation

The study tasks were conducted over approximately a 1-year timeframe. Jacobs followed the traditional sequential rate study process (presented on Figure 1-1), which included a series of steps and workshops with SECWCD's Executive Committee, to facilitate understanding, build consensus, and make time-critical decisions.

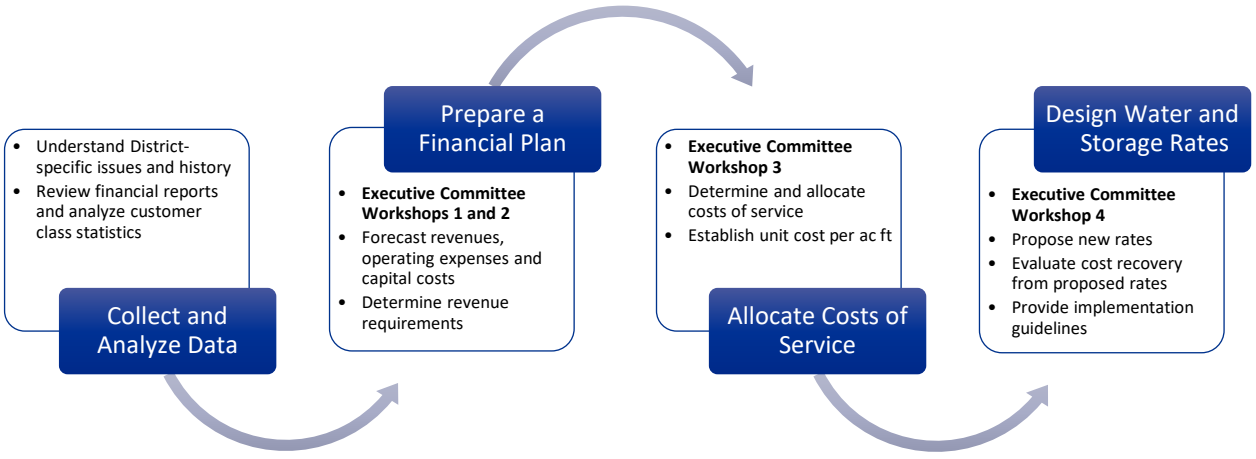


Figure 1-1. Financial Strategy and Sustainability Study Process

Through the workshop process, Executive Committee members, SECWCD staff team, Advisors, and attendees developed an understanding of the costs of providing service and the sources of revenue available to recover those costs. Jacobs designed new water and storage rates and modeled potential future revenue and cost recovery levels. To achieve full cost recovery and eliminate future deficits, Jacobs tested the proposed rate options to determine their ability to generate the necessary revenues.

The Study spans a 13-year period beginning in fiscal year (FY) 2017 and ending in FY 2029 (hereinafter referred to as the Study Period). The 10-year period between FY 2020 and FY 2029 is defined as the Forecast Period. A 3-year period between FY 2020 and FY 2022 is defined as the Rate Period. The first year of the Rate Period is the Rate Year and the second and third years are Advisory Years.

Throughout this report, reference to a year or FY is defined as beginning on January 1 and ending on December 31. Water rates in effect beginning January 1, 2020, are designated as FY 2020 rates.

Financial calculations are based on analysis conducted using Microsoft Excel software. Results use rounded figures; the analysis itself uses figures carried to their ultimate decimal places. Therefore, due to rounding, the sums and products generated in the analysis may not equal the sum or product if the reader replicates the calculation with the factors shown in the report.

In preparing this report, Jacobs relied, in whole or in part, on data and information provided by SECWCD and third parties, which has not been independently verified by Jacobs and which Jacobs has assumed to be accurate, complete, reliable, and current. Therefore, while Jacobs has utilized its best efforts in preparing the report, it does not warrant or guarantee the results and conclusions that are dependent or based upon data, information, or statements supplied by SECWCD or third parties.

Jacobs is not acting as a municipal advisor as per Section 15B of the Exchange Act[2] with respect to the information and material contained in this report. It is recommended that the District separately retain an independent registered financial advisor to provide the District with advice on issuance of debt securities and financial products, if necessary.

1.2 Background

SECWCD is a public agency created in 1958 under Colorado State Statutes to develop and administer the Fry-Ark Project.[3] In 1965, the U.S. Bureau of Reclamation (Reclamation) and SECWCD entered into a contract providing construction of the Fry-Ark Project. Today, Reclamation operates and maintains the Fry-Ark Project, which is supported and administered by SECWCD. The District boundaries extend along the Arkansas River in Colorado from the towns of Buena Vista to Lamar, and along Fountain Creek from Colorado Springs to Pueblo. The District consists of parts of nine counties deriving benefits from the Project. The nine counties include Bent, Crowley, Chaffee, Fremont, Kiowa, Otero, El Paso, Powers, and Pueblo.

The Fry-Ark Project imports approximately 55,120 acre-feet (ac-ft) of water annually to supplement municipal, agricultural, and industrial water supplies for approximately 893,000 people. The Fry-Ark Project diverts water from the Fryingpan River Basin on the Western Slope of the Continental Divide and delivers it via the Arkansas River to the water-deficient Front Range.

The District has responsibility for the legal, engineering, and administrative support required to assure water is used beneficially in accordance with state laws. Because Reclamation owns and operates the Project facilities, the District has the responsibility to meet federal policies and guidelines.

The original contract between the District and Reclamation stipulates that the District is responsible for repayment of a portion of the costs of the Fry-Ark Project. The total estimated repayment obligation for the District was $132,237,478. This represented $74,348,993 allocated to agriculture and $57,888,485 allocated to M&I. Each year, the District also incurs operation maintenance and replacement (OM&R) costs.

Amendment 11 to the original contract was signed in September 2018. Amendment 11 primarily extended the repayment term of the Contract to 2031, the end of the full repayment period. It also allows for a 1-year advance payment of OM&R costs, continues to pay for routine OM&R costs, and directs the

[2] Section 975 of Title IX of the Dodd-Frank Wall Street Reform and Consumer Protection Act amended Section 15B of the Securities Exchange Act of 1934 (“Exchange Act”) to require municipal advisors to register with the Securities and Exchange Commission, effective October 1, 2010.

[3] Colorado Revised Statute § 37-45-101.

District to establish a Project Reserve Fund to meet costs associated with work on the Project for extraordinary replacements or additions (RAX), rehabilitation, Betterment, and unforeseen or unscheduled maintenance work. Expenditures from the Project Reserve Fund are made in partnership with Reclamation. In addition, interest or dividend earnings that accrue to the Project Reserve Fund can be used by the District or Enterprise.

1.3 Property Taxes and Water Rates

SECWCD's financial underpinnings are defined by the terms and conditions of Colorado's Water Conservancy Act (Colorado Revised Statutes 37-45) and its repayment contract with Reclamation.[4] The Board retains the authority granted in the Water Conservancy Act to establish water rates, provided that "such rates are equitable although not necessarily equal or uniform for like classes of service,"[5] and the authority in the repayment contract with Reclamation to levy and collect "all necessary taxes, assessments, tolls, and other charges, and will use all of the authority and resources of the District to meet the obligations of the District to make in full all payments to be made pursuant to this contract on or before the date such payments become due and to meet its other obligations under this contract."

In accordance with its repayment contract with Reclamation, SECWCD collects a Project Mill Levy and Operating Mill Levy on real property located within its boundaries. These taxes are assessed by the individual counties and submitted to SECWCD.

In addition, SECWCD collects water rates from various private and mutual ditch companies and many municipal and domestic water suppliers, as well as other miscellaneous charges and fees. Rates are charged to only two customer types (M&I and Irrigation).

The historical Project water rate is illustrated on Figure 1-2.

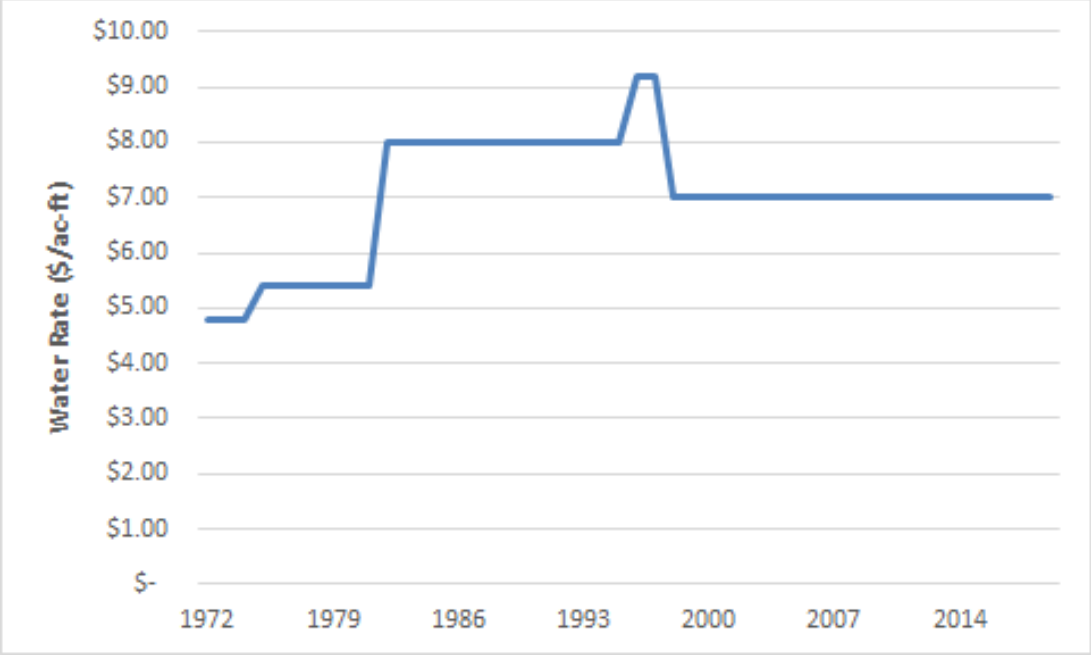


Figure 1-2. Historical Project Water Rate

[4] U.S. Department of the Interior, Bureau of Reclamation. 1965. Fryingpan-Arkansas Project, Colorado. Contract between the United States and the Southeastern Colorado Water Conservancy District, Colorado. January.

[5] Colorado Revised Statutes. 2017. Title 37 – Water and Irrigation Water Conservation and Irrigation Districts Article 45 – Water Conservancy Districts § 37-45-118. General powers (37-45-118, IV (g)).

As demonstrated on Figure 1-2, SECWCD has not implemented consistent increases in its Project water rates since 1972. Rates rose incrementally over the 30-year period from 1972 through 1997, and they have remained unchanged over the last 20 years and were even lowered in 1998 by action of the Board.

1.4 Structure of Funds

Figure 1-3 illustrates SECWCD's fund structure.

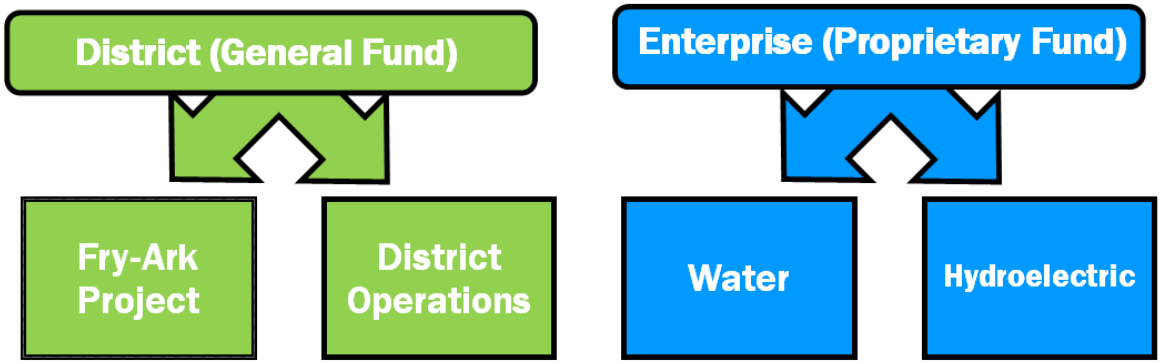


Figure 1-3. SECWCD's Fund Structure

The District General Fund is the primary operating fund of the District. For purposes of this study, the General Fund was segregated into two distinct subfunds:

- Fry-Ark Project Subfund
- District Operations Subfund

In addition to the General Fund, SECWCD operates the Enterprise Fund, with two subfunds:

- Water Subfund
- Hydroelectric Subfund

1.4.1 District General Fund

The General Fund is classified as a major fund and is used to account for all financial resources of the District except those required to be accounted for in a separate fund. For purposes of this study, the General Fund consists of the Fry-Ark Project Subfund and District Operations Subfund. Monies that can be transferred out of the General Fund to support other non-Project District activities are limited.

1.4.1.1 Fry-Ark Project Subfund

The primary source of revenue in the Fry-Ark Project Subfund its Project Mill Levy revenues. Expense items include OM&R, RAX, debt service, and Betterment of the Fry-Ark Project.

Beginning in FY 2018, excess revenue remaining after the District's payment to Reclamation was placed into a water user account held by Reclamation to be applied toward the District's share of OM&R costs in FY 2019. For FY 2019 and beyond, once the water user account balance is exhausted, the balance of the Project Mill Levy revenues remaining after the District's payment to Reclamation will be deposited into the Project Reserve Fund held by the District General Fund.

1.4.1.2 District Operations Subfund

The District Operations Subfund supports the headquarter operations of the District with the use of revenues derived from the Operating Mill Levy, specific ownership tax, inter-fund reimbursements, and interest earned. Expense items include human resources, projects, programs, consulting work, recurring capital expenses, and non-recurring capital expenses.

1.4.2 Enterprise Fund

The District's Enterprise Fund (i.e., the Proprietary Funds) is for the purposes of this financial study also classified as a major fund. The Enterprise Fund is used to account for business-type activities. The principal revenue sources of the Enterprise Fund are charges to customers for sales and services, including water sales, storage charges, contracts for service, and electricity sales. Primary expenditures include expenses incurred as a result of providing services and producing and delivering goods in connection with the funds' principal ongoing operation. The Enterprise Fund has two separate Proprietary Funds (or subfunds): the Water Subfund and the Hydroelectric Subfund. Grants from Colorado state and local governments, and/or District interfund transfers, can fund up to 10 percent of the Enterprise's annual revenue. Monies may be transferred from the Enterprise Fund to the General Fund to support General Fund activities.

1.4.2.1 Water Subfund

The Water Subfund supports the operations of the Enterprise with the use of water sales and storage revenues and interest earned. These items include hours worked on projects and programs, consulting work, debt, recurring capital expenses, and non-recurring capital expenses, as well as the hydroelectric facility when necessary. The Water Subfund includes the sale and administration of water and storage for the Fry-Ark Project, related surcharges, and return flows. Additionally, this fund is responsible for activities such as the Safety of Dams repayment obligation. Other projects accounted for in this fund include:

- The Arkansas Valley Conduit
- The Excess Capacity Master Contract
- The possible enlargement of the Pueblo Reservoir and Turquoise Lake

This fund may also include other water-related programs and projects as identified by the Board.

Between 1965 and 2009, water rate revenues were applied to the Repayment Contract with Reclamation. Amendment 9 to the original contract was signed in 2010, which removed the fixed water rate requirement and allowed SECWCD to make annual adjustments to water and storage rates. The price of water has not been changed by the District since that time.

Multi-year capital projects, such as the Restoration of Yield (ROY), are included in the Water Subfund.

1.4.2.2 Hydroelectric Subfund

The Hydroelectric Subfund was established in 2019 for operations and maintenance of the James W. Broderick Hydropower Plant at Pueblo Dam (Hydroelectric Plant).

The plant was commissioned in May 2019 and will generate an average of 28 million kilowatt hours of electricity annually, with expected revenues of about $1.5 million annually.

The Hydroelectric Plant was constructed using a $17.2 million loan from the Colorado Water Conservation Board (CWCB) and an estimated $3.5 million loan from the Water Subfund in the Enterprise. Given that the Hydroelectric Subfund is in its initial year of operation, future financial performance is unknown. The assumption for the Study is that the Hydroelectric Subfund will break even during the Forecast Period.

1.5 Ratemaking Philosophy

During the District's 61-year history, ratemaking practices have evolved to achieve its broad purpose—supplying water for irrigation, municipal, domestic, and industrial uses.

Project water rates were set as part of the Fry-Ark Project Contract with Reclamation until 2010, when Amendment 9 to the Contract allowed water sales revenues to be transferred to the Enterprise Fund. Rates initially were set at $4.80 per ac-ft when water was first sold in 1970 and changed several times

under Contract amendments. In 1998, the Board agreed to set the rate for Project water sales at $7 per ac-ft.

The Board did not adjust the Project Water rate following the addition of Project water revenues to the Enterprise Fund in 2010. Prior to 2010, revenues from Project Water were applied to Project costs (OM&R, interest on debt, and debt.)

Winter water storage charges were added in 1982. Charges for Winter Water have varied since that time but are now set at $2.80 per ac-ft under the Contract. Revenues are applied to Project costs.

Return Flow sales of Project water began in 1972, with no set rate until 2000, when a charge of $6 per ac-ft was initiated. Return flow sales were the first source of funding for the Enterprise when it was created in 1995.

Beginning in 1998, the Enterprise began using surcharges for single-purpose programs that required a funding source over a multi-year period. There are now four of these:

- 1998: Safety of Dams: The Safety of Dams surcharge is placed on all Project water sales, Return Flow sales, Project water storage, Winter water, and storage of non-Project water in Project facilities. Surcharges are applied to M&I and irrigation water sales. The charge ranges from $0.50 to $2.00 per ac-ft. A portion of the revenue is used for repayment of Safety of Dam costs to Reclamation, while the rest repays the Enterprise for payments made at the time work was completed.
- 2002: Enterprise: The Enterprise surcharge is setup to fund projects that were anticipated in 2002, as well as future activities of the Enterprise. The surcharge was applied to all types of Project and non-Project water sales and storage, except for Winter Water. The rate varies from $0.50 to $4.00 per ac- ft.
- 2005: Well Augmentation: A $2.60 surcharge is applied to all Project water sales that were part of a well augmentation plan, either M&I or irrigation.
- 2013: Environmental: A surcharge to fund four specific environmental programs was adopted by the Board in 2013. The surcharge is applied to all Project and non-Project water sales and storage.

In 2017, the District began a financial planning process called “Framing the Future” through its Executive Committee. This effort looked at the overall financial status of the District and Enterprise Funds, and the financial needs of aging infrastructure in the Fry-Ark Project.

The top recommendation of the Framing the Future process was a Board resolution to amend the Contract in September 2017. After a year of discussions and negotiations, Amendment 11 was signed in September 2018 (as described in Section 1.2).

Another result of that study was the realization by the Executive Committee that reserve funds were being used to cover shortfalls in the District and Enterprise Funds.

Fund obligation accounts and reserve targets aligned to the District’s Strategic Plan and Business Plan were set by Board resolution in September 2018. They were not funded or prioritized.

The Executive Committee in November 2017 discussed whether to raise rates to eliminate shortfalls in the District and Enterprise Funds. During discussions at the Committee level, it was agreed that a cost of service study was needed prior to any rate adjustment. The Board approved a financial study that would develop a Financial Plan, Cost of Service analysis, Capital Improvement and Capital Project Plan, Revenue Requirement analysis, Rate Design analysis, and recommendations regarding financial policies and reserves. The study would also give SECWCD staff the tools needed to evaluate these items in the future.

Following a competitive procurement process, Jacobs was retained in January 2019 to perform the above tasks as a third-party, professional consultant. An Advisors group was created to review and comment on all phases of the study. The District sponsored a round of outreach meetings in March throughout the

region served by the District to inform customer and stakeholders for the upcoming study. Then a series of four workshops in April, May, June, and July with the Executive Committee, and another round of outreach meetings in August and September to discuss possible rate increases (see Appendix A). Following the workshops, questions were raised by various stakeholders. The stakeholder questions and answers are also provided in Appendix A.

SECWCD's current ratemaking philosophy is largely defined by the approaches used in this Study, which reflect industry-standard methodologies using best practices published by the American Water Works Association and/or Reclamation (or other methodologies and best practices, as appropriate). Jacobs also provided guidance throughout the process relating to financial best-practices and policies, which are provided in Appendix B. The final policies that were adopted by the Board are also provided in Appendix B.

1.6 Historical Financial Performance

SECWCD has historically maintained a solid financial position to face current requirements; however, potential future needs were less apparent prior to Amendment 11 when SECWCD's primary focus was on repayment of Project debt. Increasingly and somewhat subtly, the cost to provide services to the District and customers has continued to rise due to many factors, including the need to repair aging infrastructure, comply with federal and state environmental regulations, and proactively monitor and respond to watershed health. Today the focus is and progressively needs to be on a new era—the repair, renewal, and replacement era.

Historical total revenue and total expenses for the Fry-Ark Project Subfund, District Operations Subfund, Water Subfund, and Hydroelectric Subfund, are presented on Figures 1-4 through 1-7, respectively.

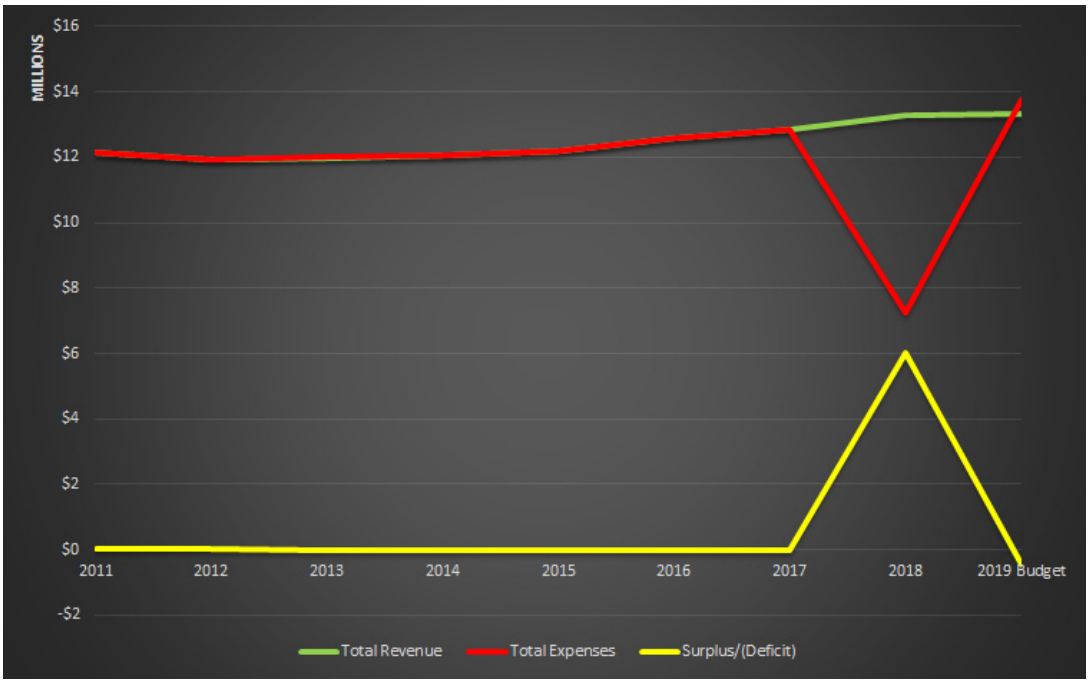


Figure 1-4. Historical Revenue and Expenses – Fry-Ark Project Subfund

As shown on Figure 1-4 revenues and expenses were evenly matched in the Fry-Ark Project Subfund historically, as Reclamation applied surplus revenue to the Project debt. In 2018, the District paid less on the Project debt as a result of Amendment 11. In 2019, the increase is attributed most notably to the replacement of Pueblo Dam contraction joint seals.

The historical revenues and expenses for the District Operations Subfund is shown on Figure 1-5.

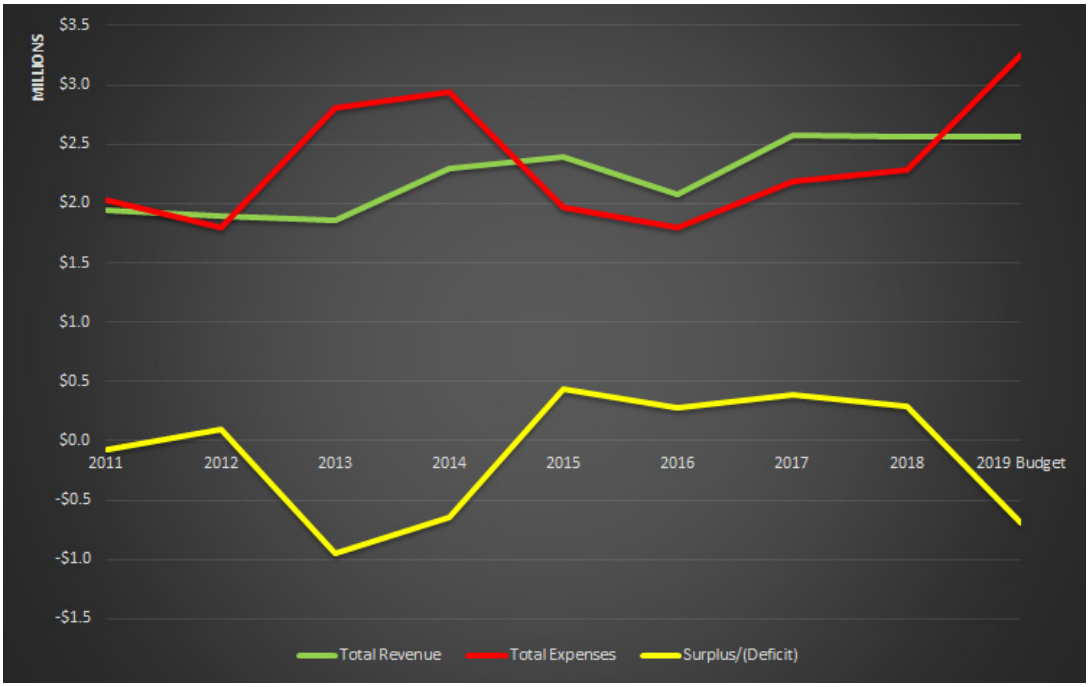


Figure 1-5. Historical Revenue and Expenses – District Operations Subfund

As shown on Figure 1-5, the District Operations Subfund has experienced some fluctuation in both revenues and expenses, with some breakeven years, some deficit years, and small surplus years.

The historical revenues and expenses for the Water Subfund is shown on Figure 1-6.

Figure 1-6. Historical Revenue and Expenses – Water Subfund

As shown on Figure 1-6, the Water Subfund has historically been more or less breakeven. Due to varying levels of snowpack (and resulting water availability), revenues from water rates are unpredictable.

Expenses do indicate a downward trend over recent years, but this is largely due to SECWCD delaying projects and deferring expenses that will be necessary in the near future.

The historical revenues and expenses for the Hydroelectric Subfund is shown on Figure 1-7.

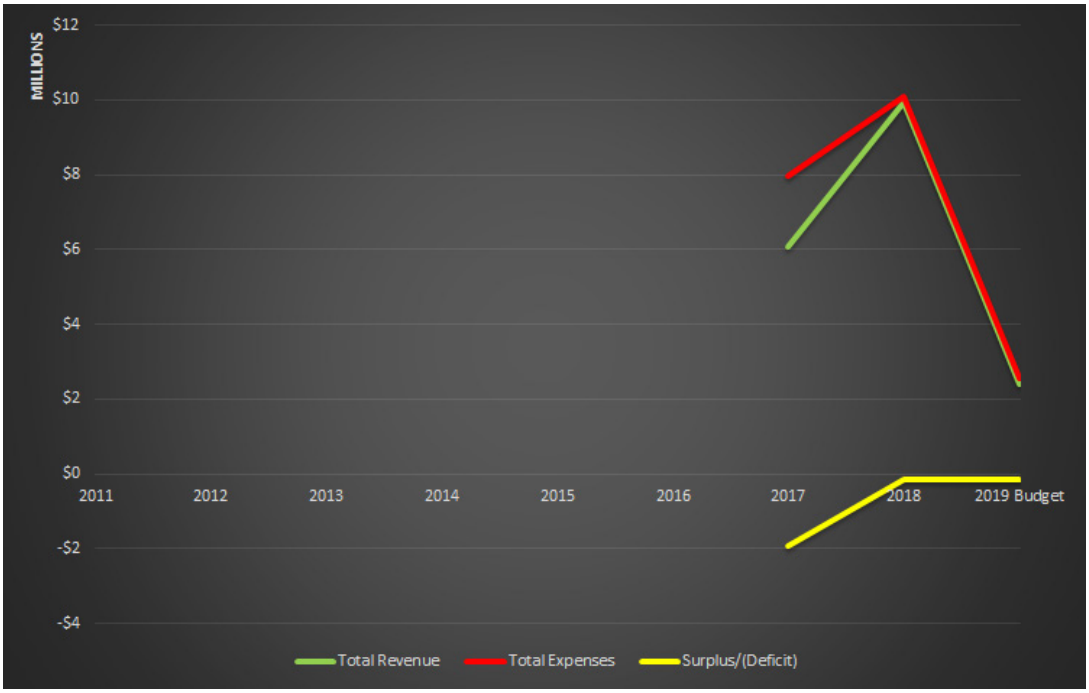


Figure 1-7. Historical Revenue and Expenses – Hydroelectric Subfund

As mentioned previously, the Hydroelectric Subfund is in its infancy; historical revenue and expenses are no indication surplus or deficit trends.

Annual surpluses or deficits correlate to annual fund balances. SECWCD's historical fund balance levels for the Fry-Ark Project Subfund, District Operations Subfund, Water Subfund, and Hydroelectric Subfund are presented on Figures 1-8 through 1-11. Annual fund balances in the following figures reflect the available fund balance (or unrestricted amounts).

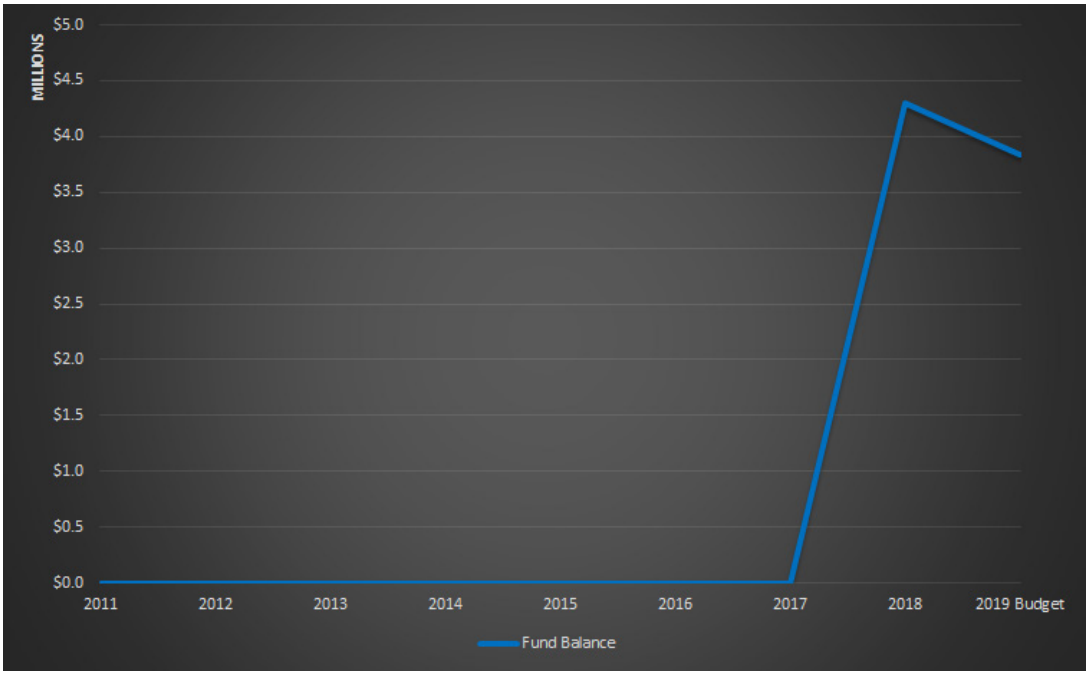


Figure 1-8. Historical Fund Balance Levels – Fry-Ark Project Subfund

As illustrated on Figure 1-8, the Fry-Ark Project Subfund has historically maintained no fund balance, as its finances and ending fund balances were fully utilized by Reclamation. With the passage of Amendment 11 in 2018, the Fry-Ark Project Subfund may now accumulate fund balance, which is to be managed by SECWCD. The increase in fund balance from 2017 to 2018 reflects the Project Reserve Fund balance and the water user account balance (refer to Section 1.4.1.1 of this report).

The historical fund balance for the District Operations Subfund is shown on Figure 1-9.

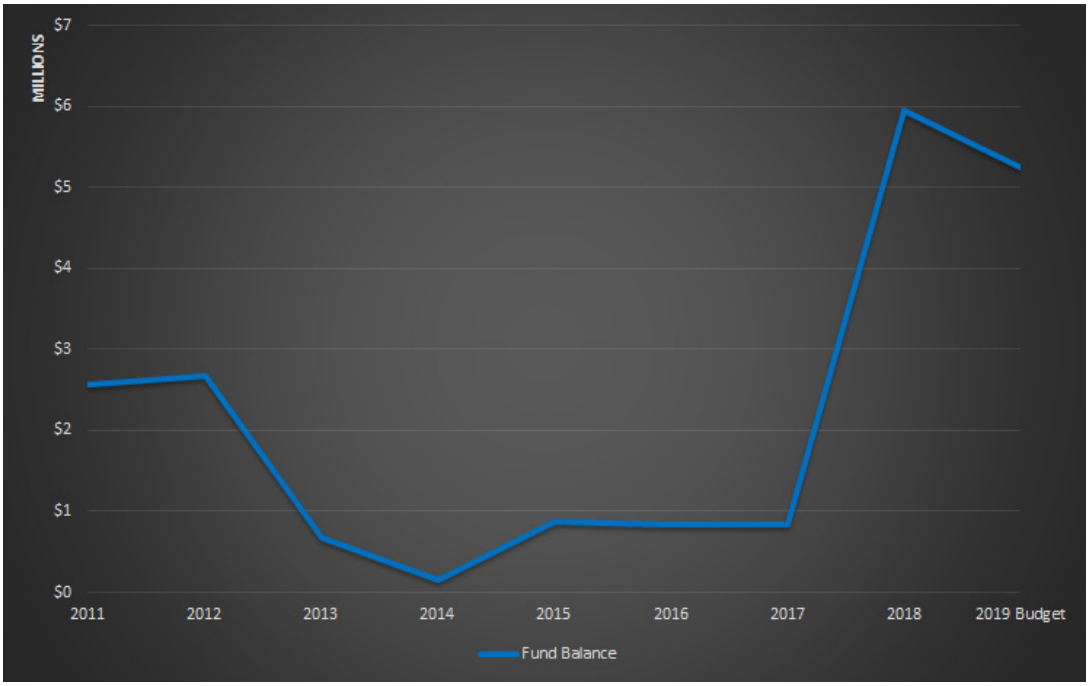


Figure 1-9. Historical Fund Balance Levels – District Operations Subfund

As shown on Figure 1-9, the District Operations Subfund balance has historically hovered between $1 million to $2.5 million. Due to Amendment 11 and restructuring the Project debt repayment, SECWCD was required to hold fewer funds in reserve for the Project debt service, leading to the increase in the available fund balance in 2018. Essentially, the District recharacterized previously restricted reserve funds to unrestricted funds.

The historical fund balance for the Water Subfund is shown on Figure 1-10.

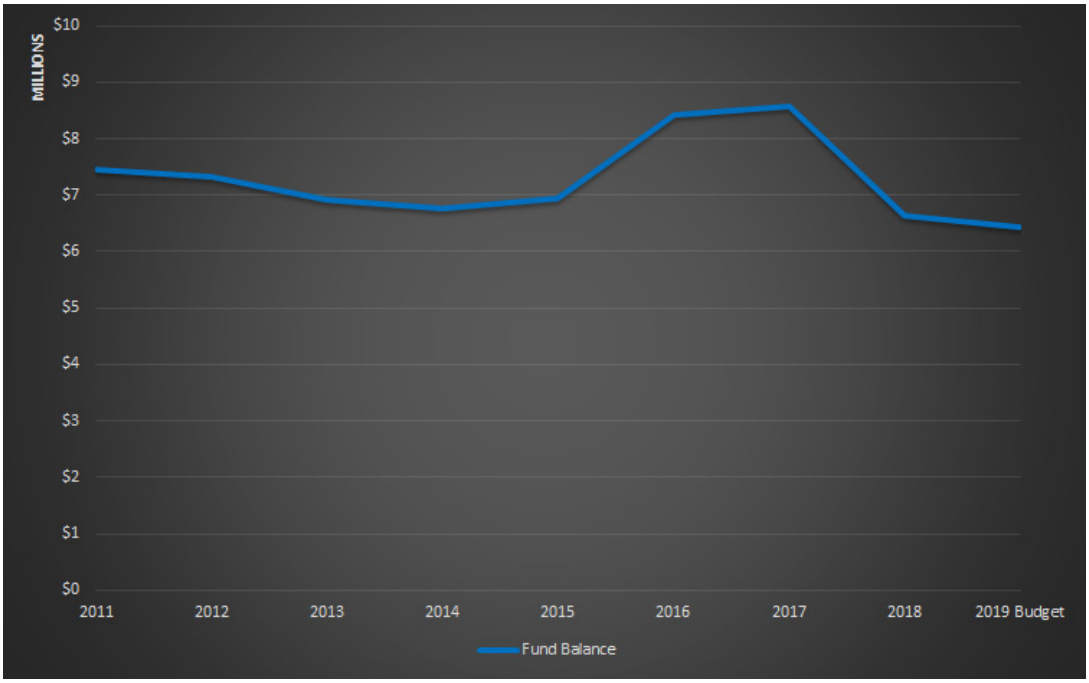


Figure 1-10. Historical Fund Balance Levels – Water Subfund

As shown on Figure 1-10, the historical fund balance of the Water Subfund has been relatively healthy and stable—around $7 million to $8 million. However, it has shown a decline beginning in 2017. It was found as a result of the Study that the Enterprise Fund has contractual obligations that will be disclosed in the 2019 audit. These items include the Project water stabilization, the Lease of Power Privilege contract requirement, and the Rocky Ford settlement.

The historical fund balance for the Hydroelectric Subfund is shown on Figure 1-11.

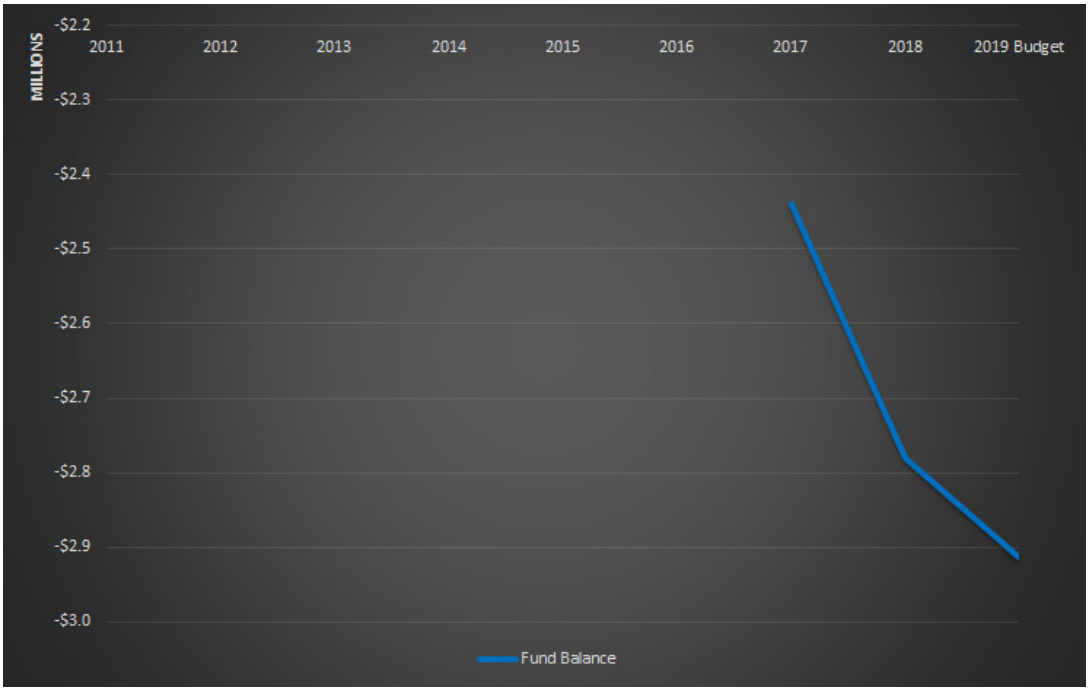


Figure 1-11. Historical Fund Balance Levels – Hydroelectric Subfund

As mentioned previously, the Hydroelectric Subfund is in its infancy. It currently has a negative fund balance largely due to its loan from the Enterprise, as shown on Figure 1-11. As the hydroelectric project comes online and begins generating anticipated levels of revenue, this fund balance should slowly begin to climb back toward neutral or positive.

SECWCD's financial planning goal has been to maintain a balanced budget, while recognizing the natural and administrative risks related to managing Project water supplies. Going forward, SECWCD should consider a financial planning goal to build reasonable reserves in both the General Fund and Enterprise Fund. This report presents the results of the COS rate study with the overarching objective of maintaining a balanced budget.

1.7 Organization of this Report

This report is organized into the following sections:

- Financial Plan—This section presents the basis for projections of SECWCD's operating expenses, capital investment, recurring capital, and debt service planned through 2029, as well as the District's revenue components. The financial results of implementing annual increases to water rates are projected.
- Cost of Service—This section summarizes the results and key findings of the COS rate study conducted to evaluate the COS for SECWCD's existing customer classes.
- Water Rate Design—This section presents the results and key findings for the water rate design options considered, as well as considerations for changes to the existing rate structure.
- Benchmarking Analysis—This section provides the results of the benchmarking analysis in which financial information for various water districts and utilities were compared to that for SECWCD.
- Preferred Water Rate Design—This section presents the preferred water rate design chosen by SECWCD's Board for implementation in future years.
- Summary and Conclusions—This section provides the study summary and conclusions for SECWCD's consideration.

2. Financial Plan

2.1 Introduction

This section summarizes SECWCD's projected revenues and revenue requirements and provides a 10-year forecast of cash flows for each of the individual subfunds. The financial plan analysis is an essential step in the overall study process and establishes the revenue requirements, and basis for the subsequent COS and rate design.

As discussed in Section 1, SECWCD's expenses have increased in recent years while its revenues have remained relatively flat, causing a decline in fund balances. It is expected that deficits will continue in future years without increases to water rates and charges, further reducing fund balances and threatening the financial sustainability of the District. This Financial Plan presents the water sales and storage revenue increases needed to balance SECWCD's revenues and expenses.

2.2 Financial Plan Basis and Assumptions

The assumptions used to develop the Financial Plan are provided in this section. SECWCD's system revenue requirements were developed using the cash basis approach, which is typical for publicly-owned agencies and enterprises. Under this approach, revenue requirements primarily consist of O&M expenses and capital expenditures. Capital expenditures include debt service and current-revenue-funded or pay-as-you-go (PAYGO) capital investments and may include transfers to and from reserves. However, this is a balanced-budget financial plan; no net increase in reserve funds is included in the user charge revenue requirement.

General assumptions, economic conditions, and capital improvement plan assumptions used in the analysis are presented in the following subsections.

2.2.1 General Assumptions

The 13-year Study Period begins in FY 2017 and ends in FY 2029. Actual expenses and revenues for FY 2017 and FY 2018, as well as budgeted expenses and revenues for FY 2019, were used as the basis for financial plan projections over the Forecast Period.

General assumptions are included in Table 2-1.

Table 2-1. General Assumptions

Description	Unit (percent)
Annual Property Tax Inflation	3.0%
Annual General O&M and CIP Inflation	2.0%
Annual District Personnel Expenses Inflation (FY 2020 and FY 2021 only) Annual District Personnel Expenses Inflation (FY 2022 and thereafter)	5.0% 2.0%
Annual District Operations Administration Reimbursement Expense Inflation	2.0%

Interest income, if any, was assumed to remain constant at 2019 budgeted levels.

2.2.2 Beginning Fund Balances

SECWCD's 2018 end-of-year fund balance totaled $24,347,000, which included $15,577,000 in the General Fund and $8,770,000 in the Enterprise Fund.

In the General Fund, the restricted reserves are established pursuant to the repayment contract with Reclamation, TABOR Amendment[6] (TABOR) requirements, and Board resolutions. Restricted reserves include prepaid assigned items of $1,687,000, Fry-Ark reserve of $4,298,000, TABOR of $150,000, Fry-Ark repayment obligation (calculated as one annual payment) of $1,500,000, and development of enlargement space of $2,000,000, for a total of $9,635,000. Therefore, the unrestricted portion of the fund balance is $5,942,000.[7]

In the Enterprise Fund, the restricted reserves are established pursuant to Board resolutions and the Lease of Power Privilege (LOPP) contract with Reclamation. Restricted reserves include project water rate stabilization of $812,000, irrevocable letter of credit for Reclamation as required by the LOPP Hydro contract of $100,000, and Rocky Ford settlement fund of $4,000,000, for a total of $4,912,000. Therefore, the unrestricted portion of the fund balance is $3,858,000.

2.2.3 Cash Reserve Targets

The District does not have formal cash reserve polices or targets. Cash reserves were the topic of Workshop No. 2 with the Executive Committee. While no resolution was reached regarding the level of cash reserves or potential funding mechanisms, Jacobs proposed cash reserve target ranges and a potential funding mechanism in the Draft Board Policies provided in Appendix B. The Draft Board Policy based cash reserve targets and funding mechanism were not used as the basis for ratemaking purposes (a strategic objective to eliminate near-term deficits was the basis for ratemaking). Jacobs recommends that the District establish a formal cash reserve policy in the near future. The current and target unrestricted reserve levels are listed in Table 2-2.

Table 2-2. Financial Plan Unrestricted Reserve Targets

	Category	Current (FY 2018)	Proposed Target
General Fund			
	Unrestricted Reserves		
	Operating Reserve	$5,942,000	$3,000,000
	Capital Reserve	--	20,000,000
	Exposure Reserve	--	10,000,000
	Working Cash Reserve	--	5,000,000
	Total	**5,942,000**	**38,000,000**
Enterprise Fund			
	Unrestricted Reserves		
	Operating Reserve	3,858,000	2,000,000
	Capital Reserve	--	4,000,000
	Exposure Reserve	--	5,000,000
	Working Cash Reserve	--	2,000,000
	Total	**3,858,000**	**13,000,000**

As summarized in Table 2-2, the potential target unrestricted reserve levels are higher than current levels and were based on reserves held by other, similar water districts to protect from unexpected revenue shortfalls or unplanned expenditures. Each category of reserves and target reserve levels should reflect

[6] Colorado General Assembly. 2019. TABOR. https://leg.colorado.gov/agencies/legislative-council-staff/tabor.

[7] The Financial Plan reflects a beginning fund balance of $10,240,000, which includes the Fry-Ark Reserve of $4,298,000. The Fry-Ark Reserve is a restricted account but for the purposes of this Study was understood to be available and unrestricted.

the District's unique circumstances, legal structure, financing capabilities, and risk of operations. These legal, financing, and risk assessments remain to be decided.

Figure 2-1 provides a summary of recommended unrestricted reserve ranges for each subfund and major fund in total.

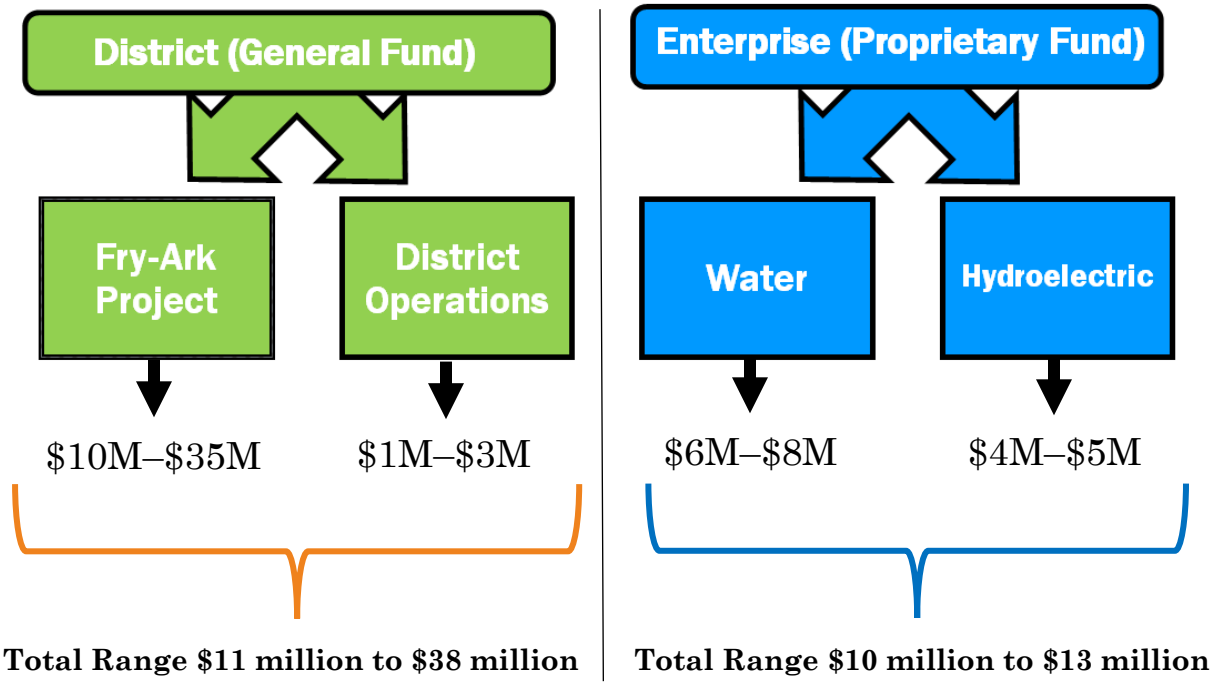


Figure 2-1. Recommended Unrestricted Reserve Ranges

As shown on Figure 2-1, the unrestricted reserve range is between $11 million to $38 million for the General Fund and between $10 million to $13 million for the Enterprise Fund. These ranges were presented to the Executive Committee during Workshop No. 2.

2.2.4 Economic Conditions

The local economy is diverse and includes agriculture, tourism, recreation, governmental organizations, military, manufacturing, and retail trade, which results in relatively stable assessed valuations. Each county has a unique history and set of challenges when it comes to water use and delivery. Counties range from rural to urban, with varying demographics. El Paso County is the largest county in the District and contributes about 70 percent of total property tax revenues collected.

Current economic conditions are characterized as stable and underpin the revenue forecast. The average increase in property taxes over the past eight years was approximately 2.0 percent annually. However, the average increase over the past 3 years was nearly 4.0 percent annually. As such, Jacobs chose to use 3.0 percent annually as a reasonable estimate over the Forecast Period.

The average increase in specific ownership taxes over the past eight years was 8.0 percent annually. However, from 2017 to 2018 the percentage change decreased slightly. Specific ownership taxes are paid each year on the value of a vehicle is registered in the State of Colorado and vary from year to year. Due to its unpredictable nature, Jacobs chose to forecast no increase in the specific ownership tax throughout the Forecast Period.

As described above, the forecasted economic conditions are based on currently available information, and include:

- Property taxes were assumed to increase by 3.0 percent annually over the Forecast Period, using 2019 budget as the basis.
- Specific ownership taxes were assumed to remain flat over the Forecast Period, using 2019 budget as the basis.

Historical and projected property tax revenues are plotted on Figure 2-2.

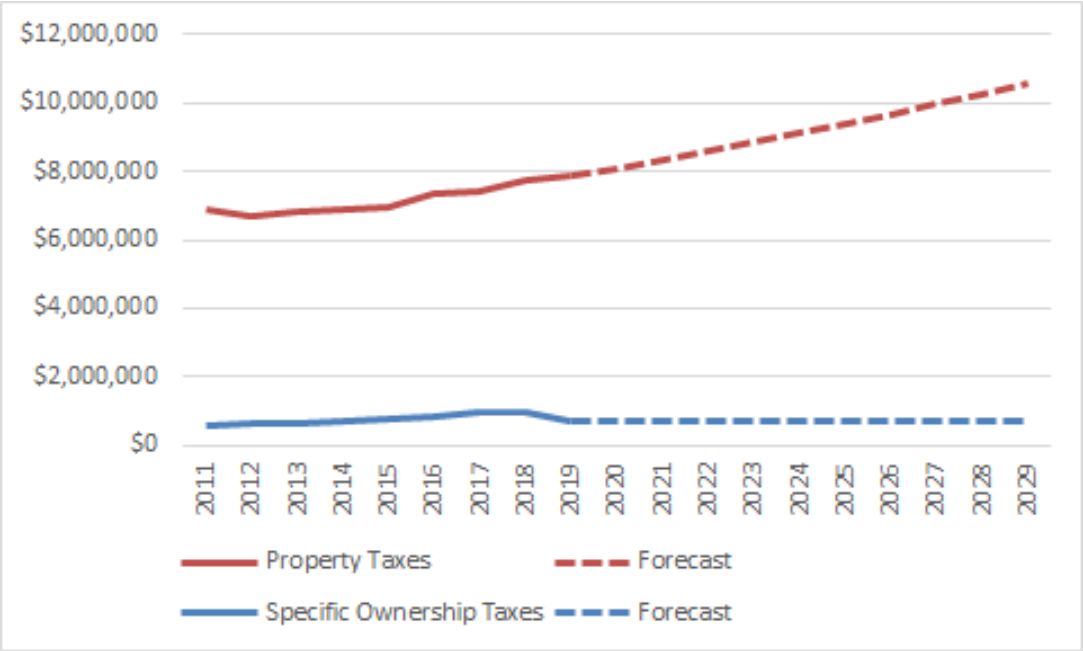


Figure 2-2. Historical and Projected Tax Revenue

One of the uncertainties facing SECWCD is the level of growth in ad valorem tax revenue. Growth in tax collections is of course beyond SECWCD's control and is largely driven by changes in assessed property valuations. The tax forecasts reflect this uncertainty.

2.2.5 Financial Plan Base Case Scenario

The Financial Plan scenario is referred to as the base case, which represents the most realistic scenario over the Forecast Period. The base case scenario includes operating conditions and assumptions that are realistic given currently available information. In addition to the Financial Plan assumptions described previously, Reclamation publishes potential RAX and CIP items on a rolling six-year basis, meaning SECWCD has only a limited view into the future. As such, the base case scenario includes known RAX items through FY 2022, and an estimate of annual RAX items of $1 million beginning in FY 2023.

In addition to unknown RAX items, District-initiated capital investments (either Betterments or Development & Improvement) are not included in the base case and may fall beyond the Forecast Period. These would include projects outside of Reclamation's work plan but that would benefit the District and/or the Fry-Ark Project. SECWCD is planning to complete asset valuation and condition assessment work in 2020 and 2021, respectively, to validate the level of future capital investment that may be required.

2.2.6 20-Year Capital Improvement Plan

The 20-Year capital improvement expenditures include capital improvements in two subfunds: the Fry-Ark Project Subfund and the Water Subfund. No capital improvement projects were included in the District Operations Subfund or the Hydroelectric Subfund. Capital expenditures include near term expenditures (within the Forecast Period) and long-term expenditures (beyond the Forecast Period). The complete projection of capital expenditures is provided in Appendix C.

It should be noted that for the purposes of this Study, a demarcation was made between Capital Improvements and Recurring Capital. A Capital Improvement is a non-recurring (typically one-time) investment by SECWCD in new or existing infrastructure, including new construction, expansion, renovation, betterment, or replacement projects, with a useful life of at least 10 years. Project costs can include the cost of land, engineering, architectural planning, and contract services needed to complete the project. These are the types of projects that are included in the 20-year Capital Improvement Plan (CIP).

Recurring capital is a capital item but accounted for as an operations and maintenance expense (defined by generally accepted accounting principles as an expense item in excess of $5,000 with a future benefit) that is a frequent or infrequent recurring investment. Examples of recurring capital include building improvements (such as mud jacking a portion of the District headquarters, replacement of window coverings, garage door replacement, and upgrading the conservation garden) and technology improvements (such as electronic records management system, exchange server replacement, and copy machine replacement). Project- and program-related items include water right protection, Fry-Ark condition assessment, conservation programs, and Snowpack Telemetry site upgrades. These items are not included in the 20-year CIP and are included in O&M.

2.2.6.1 Near Term Capital Expenditures

Capital investments over the Forecast Period are primarily for repair, rehabilitation, or improvement of aging facilities—also known as RAX. RAX expenditures are by definition not included in the CIP but are considered separately as OM&R. Pueblo Dam contraction joint seals are included in the RAX expenditures. There are no additional near-term capital improvement projects in the Fry-Ark Project Subfund over the Forecast Period.

The total cost of capital improvement projects in the Water Fund over the Forecast Period is $4.85 million (uninflated) for the ROY project. This project is broken down into four stages, the $4.85 million includes Phases 1 through 3. The layout includes Phase 1 starting in 2020, Phase 2 starting in 2025, and Phase 3 starting in 2029. Phase 4 occurs outside of the Forecast Period. No additional debt is currently anticipated to fund future capital expenditures.

2.2.6.2 Long Term Capital Expenditures

Several expenditures were identified in the 20-year CIP that fall outside of the Forecast Period; they appear in the second half of the 20-year CIP. While these expenditures are not included in the Forecast Period, the District has identified several long-term capital projects that may impact future operations, including:

- Recovery of Storage
  - Pueblo Reservoir ($177 million)
  - Turquoise Reservoir ($23 million)
  - Twin Lakes Reservoir ($127 million)
- Fry-Ark system Betterments ($9 million)
- Pueblo Dam Interconnect ($18 million)
- Other Fry-Ark renewal and replacement projects (to be determined)
- Restoration of Yield – Storage Facility Phase 4 ($2 million)
- Hydroelectric Capital Investment ($1.8 million)

The amounts listed for Projects were identified in previous studies and converted to 2019 dollars. Descriptions for these projects as well as the complete 20-year CIP is provided in Appendix C.

2.3 General Fund Financial Plan

The General Fund consists of the Fry-Ark Project Subfund and District Operations Subfund. Although both subfunds are contained within the General Fund structure, they each have distinct contractual,

policy, or legal requirements that govern their accounting and reporting requirements, as described herein.

2.3.1 Fry-Ark Project Subfund

The primary sources of revenue for the Fry-Ark Project Subfund are shown on Figure 2-3.

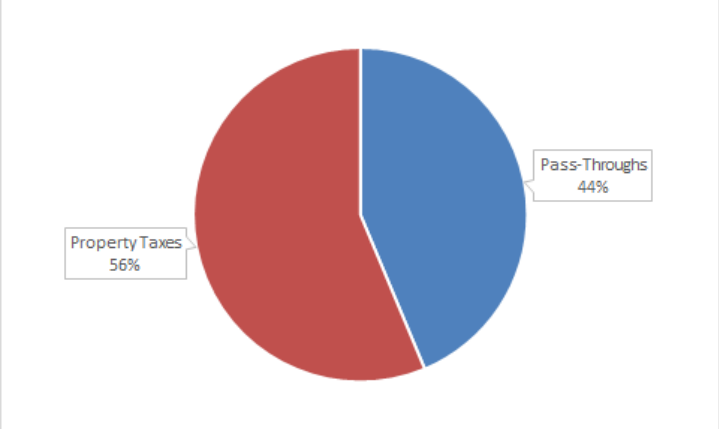


Figure 2-3. FY 2018 Sources of Revenue – Fry-Ark Project Subfund

As shown on Figure 2-3, the primary source of revenue in the Fry-Ark Project Subfund is property tax revenue derived from the Project Mill Levy. The secondary source of revenue is derived from pass-throughs, which are items that have equal and offsetting revenues and expenses, with no net effect on the subfund. Pass-throughs are comprised of revenues and expenses related to the Fountain Valley Authority contract, Winter Water storage, Excess Capacity Master Contract, and Reclamation Reform Act (RRA) fee reimbursement. It is important to note that Fry-Ark Project Subfund revenue sources can only be used for the Fry-Ark Project and cannot be transferred to other subfunds.

The distribution of the Fry-Ark Project Subfund expenses is illustrated on Figure 2-4.

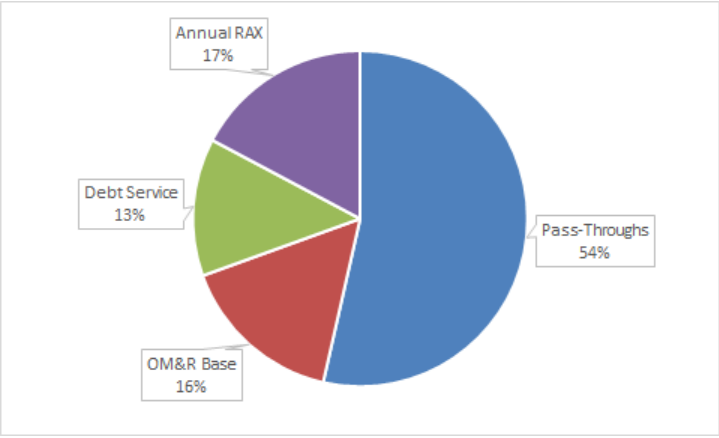


Figure 2-4. FY 2018 Expenses – Fry-Ark Project Subfund

As shown on Figure 2-4, pass-throughs, such as the Fountain Valley Authority contract, make up a bulk of the Fry-Ark Project Subfund expenses. Recall though that these items have an equal and offsetting

revenue component.[8] Remaining expenses are comprised of items such as annual RAX, debt service, and OM&R expenses—again specifically for the Fry-Ark Project.

2.3.1.1 Projected Revenues

Projected revenues are derived from the same sources as historical revenues, including:

- Property tax revenue derived from the Project Mill Levy (Contract Tax)
- Abatements and refunds tax
- Pass-through revenue
- Other miscellaneous revenue

Each of these sources are forecasted in detail in the Fry-Ark Project Subfund Financial Plan in Appendix D.

2.3.1.2 Projected Expenses

The expenses budgeted for FY 2019, projected for FY 2020, and projected in FY 2029 at the end of the Forecast Period are provided in Table 2-3.

Table 2-3. Expenses – Fry-Ark Project Subfund

	FY 2019 (Budget)	FY 2020 (Projected)	FY 2029 (Projected)
Fountain Valley Authority Contract Payments	$5,360,000	$5,360,000	$--
Operation and Maintenance Expenses			
Collection fees	--	--	--
Winter Water storage	118,000	118,000	118,000
Excess Capacity Master Contract	272,000	276,000	323,000
RRA fees	2,000	20,000	2,000
Total Operation and Maintenance Expenses	392,000	413,000	443,000
Operations Maintenance and Replacement (RAX)			
Estimation of annual OM&R base	1,818,000	1,839,000	2,400,000
Estimation of annual RAX	4,743,000	5,757,000	888,000
Total Operations Maintenance & Replacement (RAX)	6,560,000	7,597,000	3,288,000
Debt Service	1,468,000	1,468,000	1,468,000
Total Expenses	**13,780,000**	**14,837,000**	**5,199,000**

The larger expenses in the Fry-Ark Project Subfund are the Fountain Valley Authority Contract Payments (pass-through), OM&R (RAX), and debt service. Outstanding debt includes the original contract obligation to Reclamation representing the District's share of the original costs of construction, which will be retired in 2031.

[8] "The District has contracted with the U.S. government to repay approximately $63 million of costs incurred by the U.S. government in the construction of the Fountain Valley conduit which is operated by the Fountain Valley Authority (the Authority). A related contract with the Authority provides that the Authority will pay an annual conveyance service charge to the District in an amount equal to the payment due the U.S. government. Terms of the contract provide that the District is not responsible for repayment in the event of default by the Authority." As such, there is an equal and offsetting revenue and expense for the Fountain Valley Authority contract in the Financial Plan in FY 2020 and FY 2021.

2.3.1.3 Cash Flow Forecast

A summary of the Fry-Ark Project Subfund revenues and expenses is provided in Table 2-4. The complete cash flow forecast is provided in Appendix D.

Table 2-4. Summary of Cash Flow – Fry-Ark Project Subfund

	2019	2020	2029
Total Revenue	$13,317,000	$13,565,000	$10,609,000
Total Expenses	13,780,000	14,837,000	5,311,000
Surplus / (Deficit)	**(463,000)**	**(1,272,000)**	**5,298,000**

Following forecasted deficits in the early years of the forecast, net revenue turns positive in 2022 and increases significantly each year thereafter.

The projected Fry-Ark Project Subfund balances are illustrated on Figure 2-5.

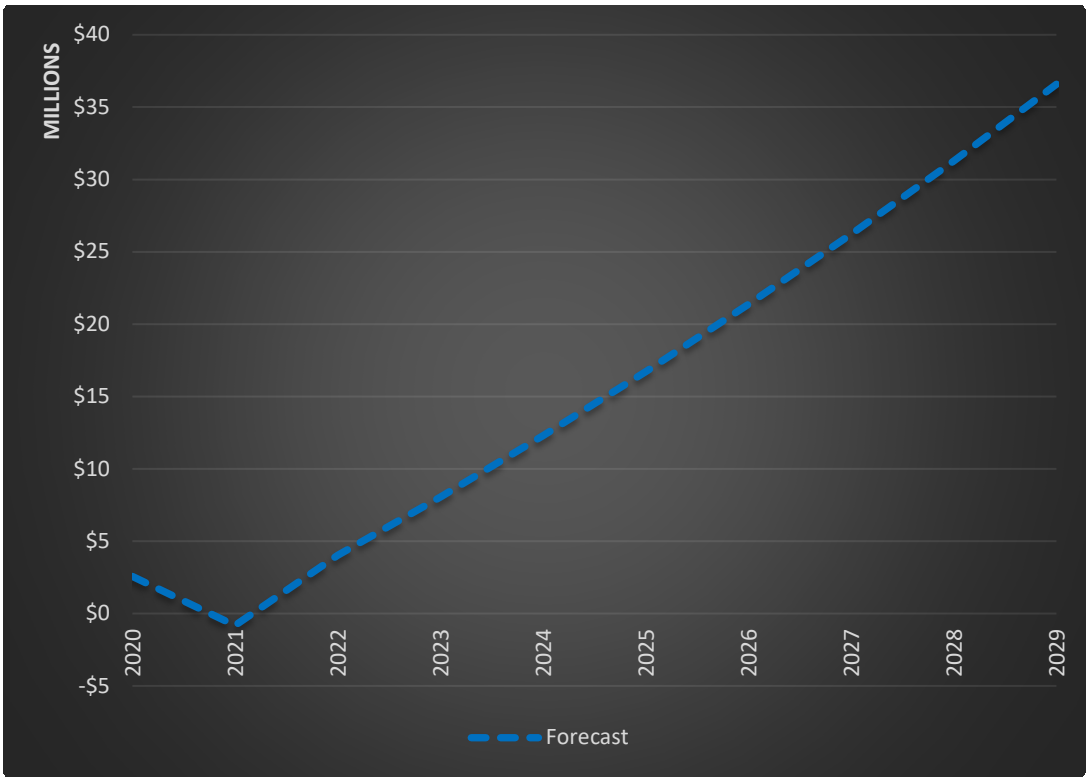


Figure 2-5. Projected Fund Balance – Fry-Ark Project Subfund

As shown on Figure 2-5, the Fry-Ark Project Subfund is projected to accumulate a significant fund balance (greater than $35 million) by the end of the Forecast Period. This fund balance will largely comprise the Fry-Ark Project Reserve Fund and must be retained within the Fry-Ark Project Subfund. This does not include future OM&R and RAX expenditures not yet determined by Reclamation.

2.3.2 District Operations Subfund

The primary sources of revenue in the District Operations Subfund are shown on Figure 2-6.

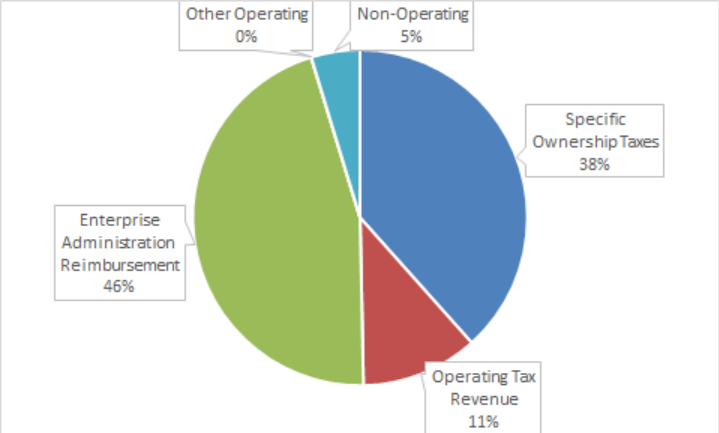


Figure 2-6. FY 2018 Sources of Revenue – District Operations Subfund

As shown on Figure 2-6, specific ownership taxes and enterprise administration reimbursement make up the majority of the District Operations Subfund revenue.

The distribution of expenses for the District Operations Subfund are shown on Figure 2-7.

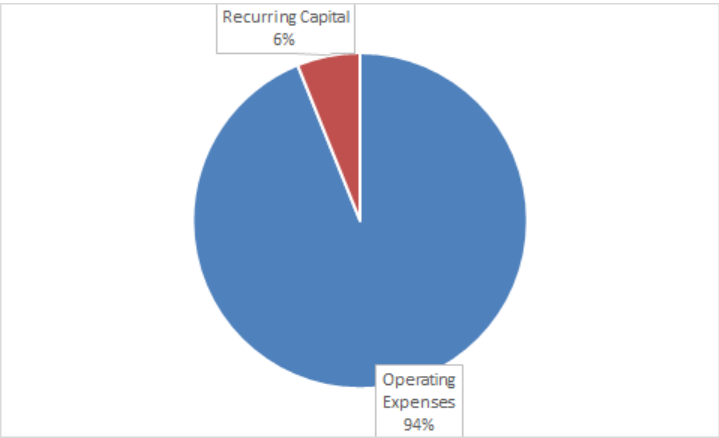


Figure 2-7. FY 2018 Expenses – District Operations Subfund

As shown on Figure 2-7, operating expenses constitute nearly the entirety of the District Operations Subfund expenses. These items include human resources, headquarter operations, meetings and travel, outside and professional services, and water conservation and education. Recurring capital costs make up the small remaining portion. Recurring capital projects include improvements to District headquarters, grounds, and technology upgrades.

2.3.2.1 Projected Revenues

Projected revenues are derived from the same sources as historical revenues, including:

- Specific ownership taxes
- Enterprise administration reimbursement
- Operating tax revenue derived from the Operating Mill Levy
- Other miscellaneous revenue (operating and non-operating)

Each of these sources of revenue are forecasted in detail for the District Operations Subfund in Appendix D.

2.3.2.2 Projected Expenses

The expenses budgeted for FY 2019, projected for FY 2020, and projected in FY 2029 at the end of the Forecast Period are provided in Table 2-5.

Table 2-5. Expenses – District Operations Subfund

		FY 2019 (Budget)	FY 2020 (Projected)	FY 2029 (Projected)
Operation and Maintenance Expenses				
	Human Resources	$1,622,000	$1,703,000	$2,096,000
	Headquarter Operations	284,000	290,000	347,000
	Meetings and Travel	141,000	144,000	172,000
	Outside and Professional Services	495,000	505,000	604,000
	Water Conservation and Education	22,000	23,000	27,000
Total Operation and Maintenance Expenses		2,566,000	2,666,000	3,245,000
Recurring Capital				
	Building Improvements (In & Outdoor)	10,000	50,000	60,000
	Technology Improvements	60,000	50,000	60,000
	Fleet Replacement	30,000	--	--
	Project and Programs	590,000	470,000	300,000
Total Recurring Capital		690,000	570,000	420,000
Total Expenses		**3,256,000**	**3,236,000**	**3,665,000**

O&M expenses constitute a majority of the expenses in the District Operations Subfund.

2.3.2.3 Cash Flow Forecast

A summary of the District Operations Subfund revenues and expenses is provided in Table 2-6. The complete cash flow forecast is provided in Appendix D.

Table 2-6. Summary of Cash Flow – District Operations Subfund

	2019	2020	2029
Total Revenue	$2,565,000	$2,630,000	$3,048,000
Total Expenses	3,256,000	3,236,000	3,665,000
Surplus / (Deficit)	**(691,000)**	**(606,000)**	**(617,000)**

Annual deficits are forecasted between $600,000 and $700,000 in the District Operations Subfund. The complete cash flow forecast for the District Operations Subfund is provided in Appendix D.

The projected fund balance for the District Operations Subfund is shown on Figure 2-8.

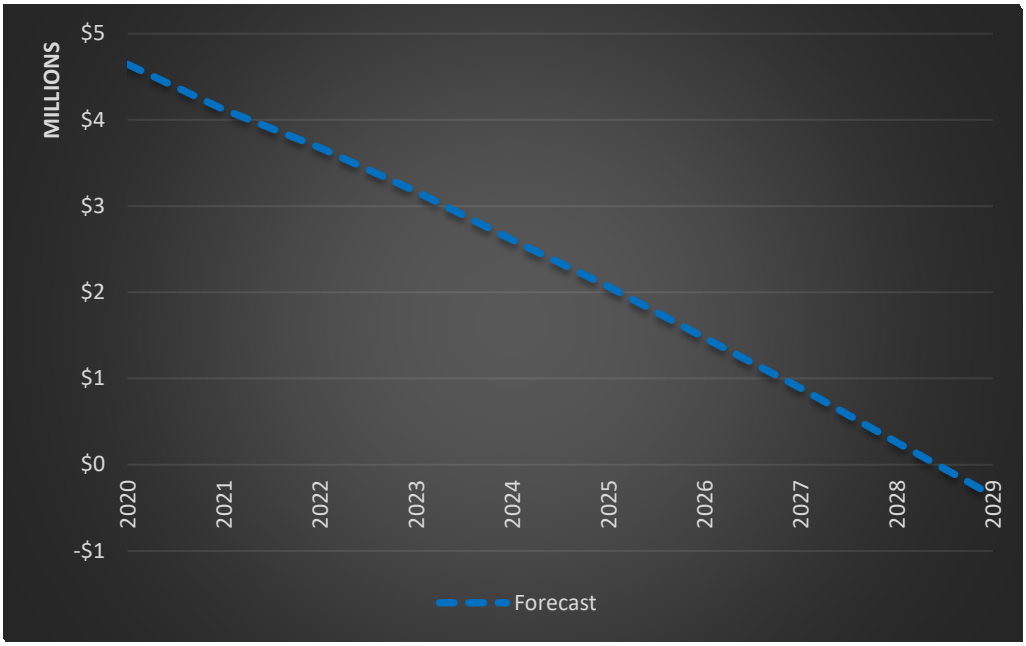


Figure 2-8. Projected Fund Balance – District Operations Subfund

As illustrated on Figure 2-8, the District Operations Subfund is projected to steadily decline and dip into a negative fund balance by the end of the Forecast Period. While no user charges are available within the District Operations Subfund, additional revenue may be obtained via transfers from the Enterprise Fund. Water rates and other user charges are the primary funding source available to obtain such revenue, as other District Operations sources are either fixed (i.e., ad valorem property tax) or outside of SECWCD's control (e.g., federal reimbursements).

2.3.3 General Fund Summary and Conclusions

The General Fund is divided into two subfunds for financial planning purposes: the Fry-Ark Project Subfund and the District Operations Subfund. Both subfunds have separate financial forecasts and significantly different financial outcomes over the 10-year Forecast Period.

The Fry-Ark Project Subfund is forecasted to begin accumulating cash in a Project Reserve Fund in 2022 that will grow as tax revenues exceed expenses. The Project Reserve Fund may approach $35 million by the end of the Forecast Period. This does not include future OM&R and RAX expenditures not yet determined by Reclamation. However, Project Reserve Fund monies are not available to offset deficits in other subfunds, including the District Operations Subfund, and/or Enterprise Fund subfunds.

The District Operations Subfund is currently running an annual deficit and is forecasted to continue in deficit each year through the forecast period. While no user charges are available within the District Operations Subfund, additional revenue may be obtained via transfers from the Enterprise Fund.

2.4 Enterprise Fund Financial Plan

The Enterprise Fund is used to account for business-type activities. The principal revenue sources of the Enterprise Fund are charges to customers for sales and services, including water sales, storage charges, contracts for service, and electricity sales.

2.4.1 Water Subfund

The primary sources of revenue for the Water Subfund are shown on Figure 2-9.

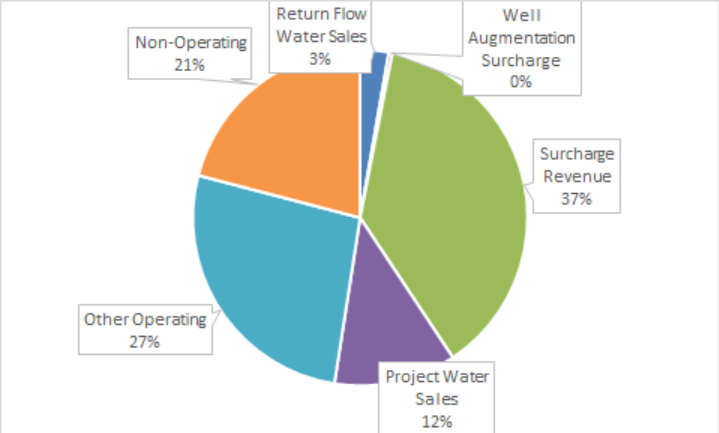


Figure 2-9. FY 2018 Sources of Revenue – Water Subfund

As shown on Figure 2-9, surcharge revenue (assessed on all water sales and storage) is the largest share of the Water Subfund revenue, with the next largest share coming from other operating revenues (i.e., Aurora Intergovernmental Agreement [IGA], partnership contributions, and participant payments).

The distribution of expenses for the Water Subfund are shown on Figure 2-10.

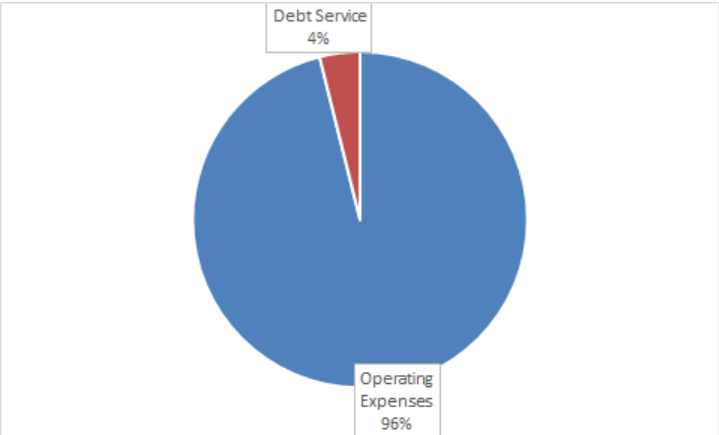


Figure 2-10. FY 2018 Expenses – Water Subfund

Operating expenses account for almost all of the Water Subfund expenses, as shown on Figure 2-10. These items include headquarter operations, meetings and travel, outside and professional services, personnel and overhead, partnerships, other payments. Project- and program-related items include items such as water rights protection, Fry-Ark condition assessment, conservation programs, and Snowpack Telemetry site upgrades. The safety of dams debt service to Reclamation makes up the remaining small portion. Going forward, a significant new expense will be PAYGO capital investments for the ROY project.

2.4.1.1 Projected Revenues

Projected revenues are derived from the same sources as historical revenues, including:

- User charge revenues
  - Water and storage rates
  - Surcharges
- Other miscellaneous revenue (operating and non-operating)

Each of these sources of revenue are described in the following sections.

Water Rates and Storage Rates—The Fry-Ark Project, and the Allocation Principles for Project water sales and storage, are predicated on a yield of 69,200 ac-ft. The 20-year average yield of the Project is about 55,124 ac-ft, or about 80 percent of the predicated yield. The problem is that there are few average years, and as such, revenue from water rates can swing dramatically from year to year. Allocations are made based on the May 1 estimate for yield each year, but the eventual yield can vary. The revenue forecast of $294,406 is based on the 2019 budget, which was based on a 20-year running average of water allocations (42,058 ac-ft, 1998–2018). In the base case, it was assumed this revenue would remain constant over the Forecast Period.

Return Flow Water Sales—Return flows were described in detail in Section 1.5 of this report. Return flow water sales were $44,820 per the 2019 budget, based on 20-year average (7,470 ac-ft, 1998–2018) which was assumed to remain constant over the Forecast Period in the base case.

Well Augmentation Surcharge—Well augmentation surcharge was described in detail in Section 1.5 of this report. Well augmentation surcharges were $12,917 per the 2019 budget. Again, this revenue was assumed to remain constant over the Forecast Period in the base case.

Water Surcharges—Surcharge derived revenue were assumed to continue without change—at the 2019 budget level of $578,649 throughout the Forecast Period.

Miscellaneous Revenue—Includes investment revenue and other non-operating revenue. Revenue from miscellaneous sources was projected at the level budgeted for 2019.

2.4.1.2 Projected Expenses

The expenses budgeted for FY 2019, projected for FY 2020, and projected in FY 2029 at the end of the Forecast Period are provided in Table 2-7.

Table 2-7. Expenses – Water Subfund

		FY 2019 (Budget)	FY 2020 (Projected)	FY 2029 (Projected)
Operation and Maintenance Expenses				
	Headquarter Operations	$100	$100	$100
	Meetings and Travel	46,000	46,000	56,000
	Outside and Professional Services	275,000	281,000	336,000
	Personnel and Overhead	1,384,000	1,438,000	1,750,000
	Partnerships	326,000	330,000	368,000
	Other Payments	22,000	22,000	22,000
Total Operation and Maintenance Expenses		2,053,000	2,117,000	2,532,000
Recurring Capital				
	Reimbursement on District upfront capital expense	--	250,000	100,000
	Project and Programs	25,000	135,000	--
Total Recurring Capital		25,000	385,000	100,000
Capital Expenditures		7,500	1,071,000	1,219,000
Debt Service		60,000	60,000	--
Total Expenses		**2,145,000**	**3,633,000**	**3,851,000**

Based on the projection of SECWCD's revenue sources (provided in Appendix D), expenses are greater than total revenue in the Water Subfund at current rate levels. Increases in user charges are needed to

recover costs over the next 10 years—as detailed in the Section Combined Revenue Requirement. Going forward, a significant new expense will be PAYGO capital investments for the ROY project.

2.4.1.3 Cash Flow Forecast

A summary of the Water Subfund revenues and expenses is provided in Table 2-8.

Table 2-8. Summary of Cash Flow – Water Subfund

	2019	2020	2029
Total Revenue	$1,930,000	$1,931,000	$1,931,000
Total Expenses	2,145,000	3,633,000	3,851,000
Surplus / (Deficit)	**(215,000)**	**(1,702,000)**	**(1,920,000)**

Annual deficits are forecasted to increase significantly over the Forecast Period. The complete cash flow forecast for the Water Subfund is provided in Appendix D.

The projected fund balance for the Water Subfund is shown on Figure 2-11.

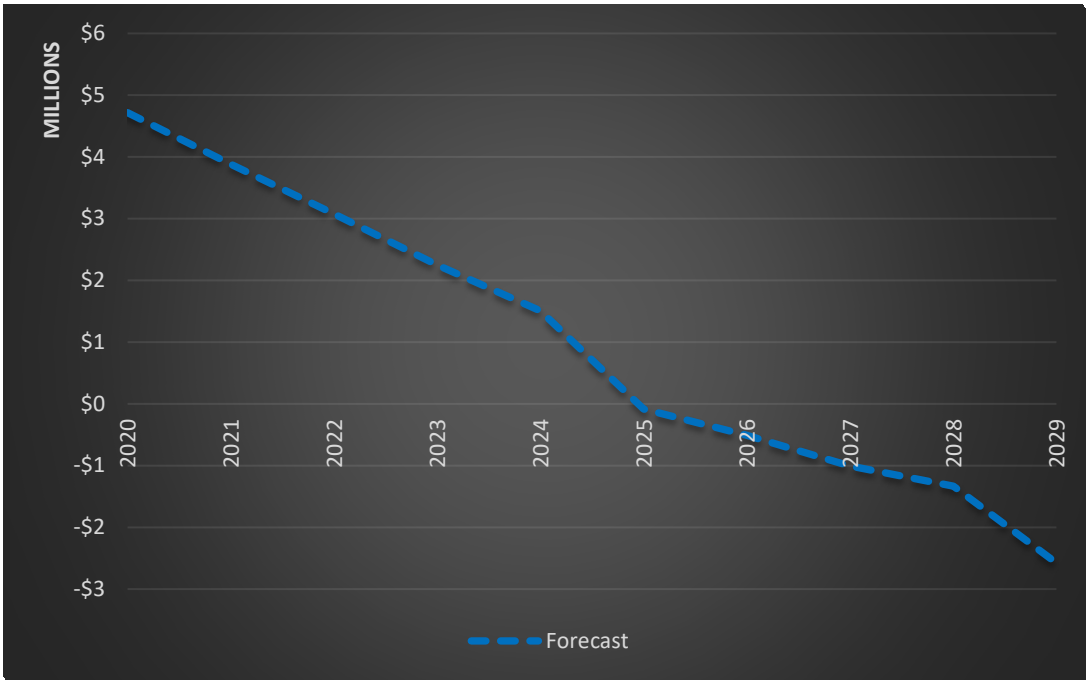


Figure 2-11. Projected Fund Balance – Water Subfund

The Water Subfund is also projected to fall into a negative fund balance by the end of the Forecast Period (Figure 2-11). Water rates and other user charges are the primary funding source available to reverse this trend.

2.4.2 Hydroelectric Subfund

The primary sources of revenue for the Hydroelectric Subfund are shown on Figure 2-12.

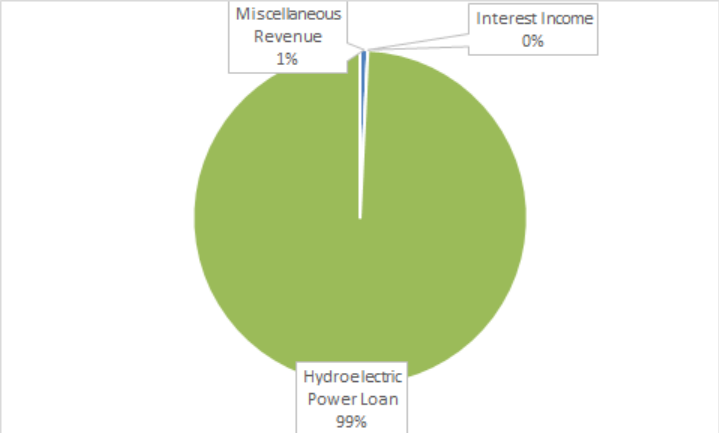


Figure 2-12. FY 2018 Sources of Revenue – Hydroelectric Subfund

In 2018 the Hydroelectric Subfund had yet to generate operating revenues, thus its revenue source was loans, as shown on Figure 2-12.

The distribution of expenses for the Hydroelectric Subfund are shown on Figure 2-13.

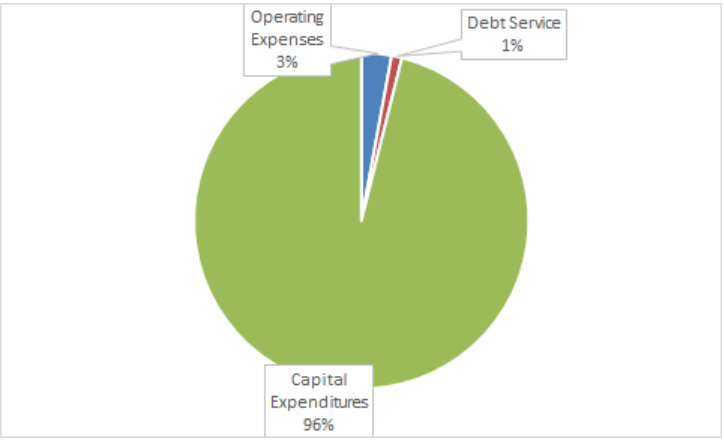


Figure 2-13. FY 2018 Expenses – Hydroelectric Subfund

In 2018 the hydroelectric project was under construction, thus nearly all expenses were capital expenditures, as shown on Figure 2-13.

2.4.2.1 Projected Revenues

Projected revenues will be derived from new sources, including:

- Electricity sales
- Other miscellaneous revenue (operating and non-operating)

Each of these sources of revenue are forecasted in detail in Appendix D.

2.4.2.2 Projected Expenses

The expenses budgeted for FY 2019, projected for FY 2020, and projected in FY 2029 at the end of the Forecast Period are provided in Table 2-9.

Table 2-9. Expenses – Hydroelectric Subfund

		FY 2019 (Budget)	FY 2020 (Projected)	FY 2029 (Projected)
Operation and Maintenance Expenses				
	Meetings and Travel	$5,000	$5,000	$7,000
	Outside and Professional Services	80,000	40,000	50,000
	Tours & anniversary events	5,000	--	--
	Personnel and Overhead	51,000	53,000	66,000
	Annual Project Expense	311,000	388,000	498,000
Total Operation and Maintenance Expenses		452,000	487,000	620,000
Capital Expenditures		1,756,000	--	--
Debt Service		348,000	348,000	907,000
Total Expenses		**2,556,000**	**835,000**	**1,527,000**

Debt service includes both the loan contract with CWCB and the Enterprise loan for construction of the Hydroelectric Project.

2.4.2.3 Cash Flow Forecast

A summary of the Hydroelectric Subfund revenues and expenses is provided in Table 2-10.

Table 2-10. Summary of Cash Flow – Hydroelectric Subfund

	2019	2020	2029
Total Revenue	$2,422,000	$1,283,000	$1,570,000
Total Expenses	2,556,000	835,000	1,527,000
Surplus / (Deficit)	**(134,000)**	**448,000**	**43,000**

Recall that the Hydroelectric Subfund was forecasted at roughly breakeven, as shown in Table 2-10. The complete cash flow forecast for the Hydroelectric Subfund is provided in Appendix D.

The projected fund balance for the Hydroelectric Subfund is shown on Figure 2-14.

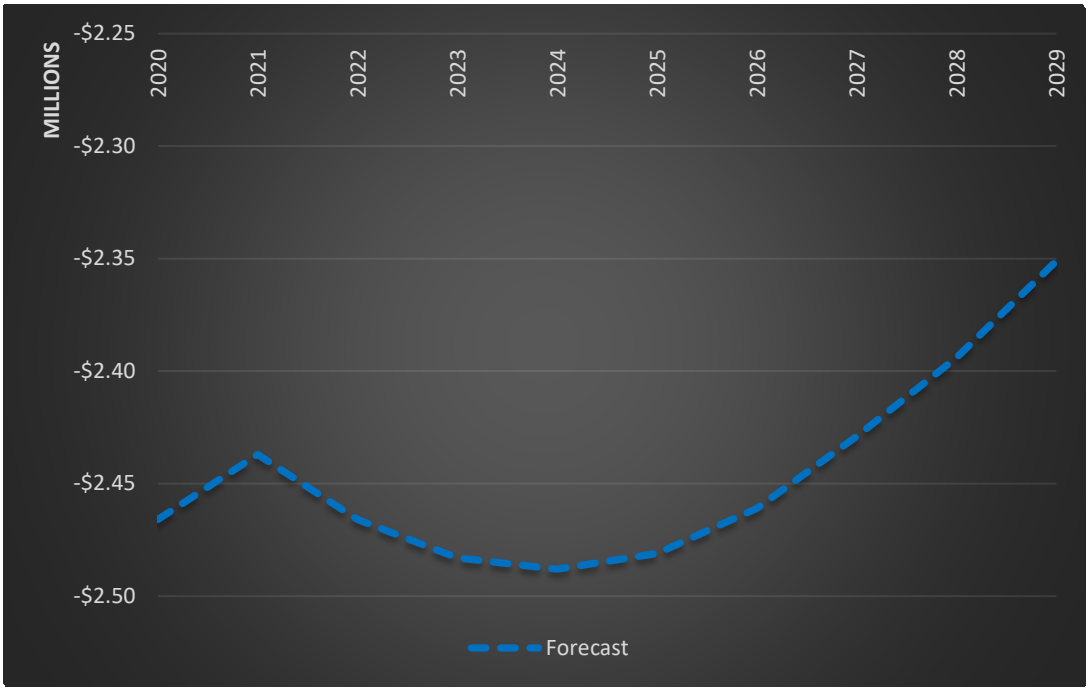


Figure 2-14. Projected Fund Balance – Hydroelectric Subfund

As shown on Figure 2-14, the Hydroelectric Subfund should show a slightly increasing fund balance over the Forecast Period, due to its loan repayment to the Enterprise, assuming operations run as intended.

2.4.3 Enterprise Fund Summary and Conclusions

The Water Subfund is currently in deficit and is forecasted to continue in deficit each year throughout the forecast period at current water rates and charges. Annual deficits range from $800,000 to $1,900,000, with an average of approximately $1.0 million annually.

The Hydroelectric Subfund future cash flow is based on initial project feasibility study assumptions and current estimates of performance. It is unrealistic to speculate on the financial performance of the Hydroelectric Subfund at this time, and as such, it has been forecasted to breakeven in the base case. The Hydroelectric Subfund was not further evaluated and was not included in the combined revenue requirement computations.

2.5 Combined Revenue Requirement

The combined revenue requirement is the total annual amount that SECWCD must recover from all available sources of revenue. From this point forward, the annual deficits discussed in this section are now known as the revenue requirement. The combined revenue requirement pertains only to the subfunds with forecasted operating deficits—the District Operations Subfund and the Water Subfund. The Fry-Ark Project Subfund is entirely supported by ad valorem tax revenues and no significant deficits are forecasted in this subfund. Likewise, the Hydroelectric Subfund is entirely supported by electric revenue and no additional deficits are forecasted in this subfund.

Therefore, the total combined revenue requirements are comprised of requirements from both the District Operations Subfund and the Water Subfund as provided in Table 2-11.

Table 2-11. Combined Revenue Requirements

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
District Operations Subfund											
Total Revenue Requirements	$3,236,000	$3,223,000	$3,179,000	$3,288,000	$3,380,000	$3,409,000	$3,505,000	$3,534,000	$3,634,000	$3,665,000	$34,052,000
Total Revenues	2,630,000	2,697,000	2,738,000	2,779,000	2,822,000	2,865,000	2,909,000	2,954,000	3,001,000	3,048,000	28,443,000
Net Revenue Requirements	**606,000**	**526,000**	**441,000**	**509,000**	**559,000**	**543,000**	**595,000**	**580,000**	**633,000**	**617,000**	**5,609,000**
Water Subfund											
Total Revenue Requirements	3,633,000	2,712,000	2,756,000	2,867,000	2,860,000	3,802,000	2,724,000	2,899,000	2,824,000	3,851,000	30,928,000
Total Revenues	1,931,000	1,931,000	1,931,000	1,931,000	1,931,000	1,931,000	1,931,000	1,931,000	1,931,000	1,931,000	19,310,000
Net Revenue Requirements	**1,702,000**	**781,000**	**825,000**	**935,000**	**930,000**	**1,871,000**	**794,000**	**967,000**	**893,000**	**1,920,000**	**11,618,000**
Total Combined Net Revenue Requirements	**2,308,000**	**1,307,000**	**1,266,000**	**1,444,000**	**1,489,000**	**2,414,000**	**1,389,000**	**1,547,000**	**1,526,000**	**2,537,000**	**17,227,000**

The total combined net revenue requirements from both subfunds (District Operations Subfund and Water Subfund) is $17,227,000 over the Forecast Period. PAYGO capital investments result in cash flow volatility that make it difficult to tie a revenue requirement to a single year.

Due to the volatility in forecasted revenue requirements, Jacobs chose to calculate an average annual deficit over the Forecast Period using a cash-flow analysis. The resulting average deficit was $1.72 million annually over the Forecast Period. Therefore, an approximate doubling of current user charge revenue is needed over the 10-year Forecast Period on an annual average basis.

As is presented later in Section 4, Water Rate Design, user charges were adjusted to gradually eliminate the annual deficit over the 10-year Forecast Period. User charge revenue (UCR) is comprised of water rate revenue collected from customers, and other revenue collected from customers through user fees and charges, including return flow water sales, well augmentation surcharge, and other surcharge revenue. All UCR sources, collectively, need to be considered when adjusting or designing new user charges.

Using an average annual revenue requirement approach (over the 10-year Forecast Period) focuses attention on the key, strategic Financial Plan assumptions, and the magnitude of SECWCD's overall financial needs, rather than the nuances introduced by timing year-to-year revenues to precisely match expenses.

2.6 Summary and Conclusions

This section presented the assumptions used to forecast SECWCD's revenues and expenses within four separate subfunds, and the approach used to establish the user charge revenue requirement as a basis for the Financial Plan. The results of the Financial Plan indicate SECWCD's total annual average deficit over the Forecast Period is $1.72 million annually, assuming water rates remain unchanged. The District Operations Subfund and Water Subfund ending cash balances will continue to decline to cover this annual shortfall without rate increases. Based on Jacobs' analysis, an approximate doubling of revenue (collectively, from all UCR sources) is required, and will be phased-in over future years to transition to more balanced revenues and expenses.

The 10-year combined deficit (District Operations Subfund and Water Subfund) is $17.2 million over the Forecast Period, or an average $1.72 million annually. This amount is the additional revenue required from user charges.

The base case is a balanced-budget financial plan; no net increase in reserve funds is included in the revenue requirement.

3. Cost-of-Service

3.1 Introduction

This section summarizes the results of the COS analysis to deliver water to the District's customers. The revenue requirements developed under the Financial Plan task were used as the basis for this analysis. The fundamental objective was to define a Project Water Rate COS for each customer class as a proportionate share of net system operations costs. The COS isolates the revenue and expenses pertaining only to the Project Water Rate; it is not the total, systemwide cost of service. Total costs of service are recovered from all sources of revenue, of which Project Water sales revenue is one (of many).

The theory and purpose of proper cost allocation was published by Dr. James C. Bonbright, a faculty member of the Columbia University School of Business from 1919 to 1960, in his widely cited book "Principles of Public Utilities" in 1961. Bonbright's principles are often summarized as three objectives:

1) Meet the revenue requirement
2) Apportion production costs among customers fairly and equitably
3) Achieve optimal efficiency

The analysis was performed using a future test year, thereby establishing a basis for future rate design. The test year chosen for this analysis was FY 2020. Two COS methods were analyzed:

- Uniform Cost Allocation—Divides the total costs of service by the total number of ac-ft for a resulting uniform cost per ac-ft for all users.
- Split Cost Allocation—Considers the portion of O&M and certain capital expenses benefiting specific customers. A percentage of expenses was allocated to M&I and/or Irrigation customers to develop costs per ac-ft for each customer type.

Using these two methods, the Project Water COS was determined for the total number of ac-ft, and a modified COS approach (i.e., a binary-or-both cost allocation method) was applied to determine the appropriate cost recovery proportions.

The revenue requirements, non-user charge revenue, and non-Project water revenue sources were obtained from the Financial Plan projection for FY 2020 (test year) under the Base Case scenario. Scenario selection is less important in COS than in financial planning as the intent of the analysis is to establish equitable proportionality between the classes, not necessarily the required revenues or rate levels. In addition, the COS analysis applies only to a single user charge—the Project Water Rate; the cost basis for other user charges (i.e., well augmentation, storage charges, and return flows) were derived from associative cost analysis as described in the following sections.

3.2 Project Water Cost-of-Service

Net Project Water COS includes O&M expenses, capital costs, and other non-operating costs, less revenue credits or adjustments. The District's revenue credits include all sources of non-user charge revenue, such as property taxes, water storage charges, water surcharges, fund transfers, and other operating and non-operating revenue. Additional revenue adjustments were made to account for revenue and/or revenue credits from non-Project Water revenue, and from the Hydroelectric Subfund, to isolate the resulting required revenue from Project Water rates. Therefore, the FY 2020 net COS establishes the net revenue to be recovered by Project Water rates only.

The components of the net COS calculation are listed in Table 3-1.

Table 3-1. Project Water Net Cost-of-Service – 2020 Test Year

Description	Dollars
District Operations Subfund	
Revenue Requirements	
Operation and Maintenance	$2,665,550
Recurring Capital	570,000
Capital Investment	-
Total Revenue Requirements	3,235,550
Revenue Credits	
Specific ownership taxes	(712,377)
Operating tax revenue	(305,531)
Xeriscape tour and material sales and other	(1,000)
Enterprise administration reimbursement[a]	(1,184,528)
Non-operating revenues	(120,212)
Increase (Decrease) in Operating Reserves	(606,000)
Total Revenue Credits	**(2,929,648)**
Net Cost of Service	**306,000**
Water Subfund	
Revenue Requirements	
Operation and Maintenance	2,117,000
Recurring Capital	385,000
Capital Investment	1,071,000
Debt Service	60,000
Total Revenue Requirements	3,633,000
Revenue Credits	
Return flow water sales	(45,000)
Well augmentation surcharge	(13,000)
Surcharge revenue	(579,000)
Aurora IGA—If-and-When WAE fee	(100,000)
Aurora IGA—administration fee	(50,000)
Partnership contributions	(110,000)
Participant payments	(358,000)
Non-operating revenues	(382,000)
Increase (Decrease) in Operating Reserves	(1,702,000)
Total Credits	**(3,338,000)**
Net Cost of Service	**295,000**
Net-Net Project Water Cost of Service (Combined Funds)	**601,000**

[a] 20% of enterprise administration reimbursement is allocated to Hydroelectric Subfund.

Note:

WAE = Water Activity Enterprise

As demonstrated in Table 3-1, the 2020 net-net Project Water COS of both the District Operations Subfund and Water Subfund is $601,000. The Project Water COS represents only a portion of the total $1.72 million annual revenue requirement to be recovered through user charges. The Project Water COS also serves as a proxy for establishing a customer class cost allocation basis for SECWCD's other water and storage charges, as described below.

The net-net COS per ac-ft of Project Water using both the uniform and split allocation methods are discussed in the following sections. For the purposes of the COS analysis, revenues from surcharges charges were assumed to remain fixed, meaning this revenue was considered a revenue adjustment (or credit). Additional revenue could be generated (or reduced) should the District's surcharges be increased (or reduced). Additional considerations for the user charges are discussed in Section 4, Water Rate Design. Further evaluation of the surcharges is recommended in a future cost of service analysis.

3.2.1 Uniform Cost-of-Service

This analysis provides the uniform per-unit cost for all units, regardless of contract type or customer class, to establish the net COS to deliver an ac-ft of water. The net-net COS ($601,000) provided in Table 3-1 was divided by the total number of ac-ft (42,058 ac-ft) to obtain a uniform net COS. The resulting uniform net COS for all units is $14.29 per ac-ft in 2020, as shown in Table 3-2.

Table 3-2. Project Water Uniform Unit Cost of Service

Allocation Method	Municipal/Industrial	Irrigation
Unit Cost of Service – $/ac-ft	**$14.29**	**$14.29**

Note:

$/ac-ft = dollar(s) per acre-foot

As shown in Table 3-2, the uniform cost of service is $14.29 per ac-ft in 2020 for both customer classes.

3.2.2 Split Allocation Cost-of-Service

The Split Allocation COS method considers the portion of O&M expenses benefiting specific customer classes. A percentage of annual and capital expenditures were allocated to the customer classes to develop unit costs per ac-ft. The allocation of expenses to customer classes was based on the distribution of expenses to M&I and/or Irrigation customers using 2020 expenditures within each expense category. The allocation for each of the expense categories is provided in Appendix E.

The allocation factors for O&M, capital investment, recurring capital, and Debt Service distribute these expenses to M&I customers and Irrigation customers based on the number of ac-ft sold to these customer classes (using a 20-year average). The resulting distribution of total expenses was approximately 58 percent to M&I customers and 42 percent to Irrigation customers. The revenue adjustments were allocated using the distribution of expenses between customer classes. The expenses and revenue adjustments by customer class for the test year are provided in Appendix E.

The split-allocation unit COS is calculated by dividing the expenses and revenue adjustments by the total number of acre feet in each customer class. There are 22,960 M&I ac-ft and 19,098 Irrigation ac-ft using a 20-year average. The unit COS calculations by customer class is included in Appendix E.

A comparison of the COS using the split allocation method is provided in Table 3-3.

Table 3-3. Project Water Split Allocation Unit Cost of Service

Line No.	Description	Municipal/Industrial	Irrigation
1	Net-Net Cost of Service	$350,000	$251,000
2	Total Number of Units	22,960	19,098
3	**Unit Cost of Service – $/ac-ft**	**$15.25**	**$13.14**

The values in Table 3-3 represent the cost to deliver an ac-ft of water to an M&I customer and an Irrigation customer.

The current rate schedule also includes storage charges for three types of service: winter water storage, Carryover Project Water, and If-and-When Storage.

3.3 Carryover Project Water

The allocation of Project water and return flows is governed by the "Operating Principles Fryingpan-Arkansas Project" adopted by the State of Colorado, and by SECWCD's approved Allocation Principles, Allocation Policy, Findings of Determination, and Resolutions. These governing documents set forth the terms of the carry-over program. Project water that is imported into the basin is fully consumable, and it is the District's responsibility to account for this.

Carry-over storage is a longer-term storage alternative to the normal year-to-year storage, sale, and delivery of Project water. Carry-over storage is available only to M&I customers in specified accounts in Pueblo Reservoir. This storage impacts the Enterprise's net revenue.

For example, water in storage is lost through both evaporation and transit and must be replenished. Additionally, return flows are not realized when water is idled in carryover storage, and therefore subsequent uses of return flows cannot be sold on a year-over-year basis. Such foregone return flow sales results in a lost revenue opportunity for the SECWCD.

Jacobs evaluated several approaches to determining the COS for storage, including an avoided cost approach, separable costs remaining benefits approach, and an opportunity cost approach. Of these, the opportunity cost approach, or the value of the foregone alternative, most closely correlated with the District's cost-causation due to revenue losses from evaporation, transit losses, and the foregone return flow sales described above. For the purposes of the calculation, consumptive use is presumed to be 0.6 ac-ft per ac-ft sold, leaving 0.4 ac-ft per ac-ft sold available for return flow sales.

The Carry-Over Project water COS calculation is summarized in Table 3-4.

Table 3-4. Carry-Over Project Water Cost of Service

Step Description	Opportunity Cost ($/ac-ft)
Step 1: M&I Project Water Cost per Acre Foot ($15.25)	
Step 2: Annual Evaporation Losses	$1.52
Step 3: Transit Losses (on evaporation replenishment)	$0.17
Step 4: Foregone Return Flow Sales	$10.17
Step 5: Total Opportunity Cost of Carryover Water	**$11.86**

Step Notes:

Step 1: For reference, $15.25 is COS-based M&I Project Water rate, as determined in this Study.

Step 2: The cost of annual evaporation losses is $1.52 (10% of $15.25 = $1.52).

Step 3: The cost of additional transit losses on evaporation is $0.17 (10% of ($15.25 + $1.52) * 10% = $0.17).

Step 4: The cost of foregone return flow sales is $10.17 ($15.25 / 0.6 = $25.42, the value of a full ac-ft); (40% of $25.42 = $10.17).

Step 5: The total cost of carryover water is $11.86 ($1.52 + $0.17 + $10.17 = $11.86).

Using the opportunity cost approach, the COS for Carryover Project Water was determined to be $11.86 per ac-ft.

3.4 Winter Water Storage

The current $2.80 water rate for winter water storage is charged by Reclamation and the associated water rate revenue is transferred directly to Reclamation. SECWCD supports the winter water storage program on behalf of Reclamation, but no SECWCD-related costs are reflected in the $2.80 water rate.

Winter water storage charges were simply increased at the same percentage as the Project Water Rate increase (104 percent) to arrive at a new COS basis for the winter water storage charge. The current

$2.80 per ac-ft water rate was increased to $5.72 per ac-ft to establish SECWCD's COS for the winter water storage charge.

3.5 If-and-When Storage

If-and-When Storage (also known as Excess Capacity Storage) is only provided for non-Project water, and revenues accrue to Reclamation. The COS for If-and-When Water is reflected in current SECWCD surcharges, and no additional water cost is applicable to the If-and-When storage charge.

3.6 Return Flows

Return flows replace depletions within Southeastern District boundaries. Return Flows require as much, if not more, administration (and cost) as Project Water. Return Flows are delivered as a full ac-ft of water (as opposed to Project Water, which is 0.6 ac-ft delivered). Using an associative cost basis, the return flows cost was scaled to account for its full ac-ft quantity and adjusted for its on-demand limitation. The COS calculation basis is provided in Table 3-5.

Table 3-5. Return Flows Cost of Service

Step Description	Municipal/Industrial ($/ac-ft)	Irrigation ($/ac-ft)
Step 1: Project Water Cost per Acre Foot	$15.25	$13.14
Step 2: Project Water COS Value (full ac-ft)	$25.42	$21.90
Step 3: On-Demand Credit	($6.64)	($5.72)
Step 4: Return Flows COS	**$18.78**	**$16.18**

Step Notes:

Step 1: For reference, $15.25 is COS-based M&I Project Water rate and $13.14 is COS-based Irrigation Project Water rate, as determined in this Study.

Step 2: Return flows are a full ac-ft of water: M&I is $25.42 ($15.25 / 0.6 = $25.42) and Irrigation is $21.90 ($13.14 / 0.6 = $21.90).

Step 3: Return flows cannot be stored (and on-demand): M&I is $6.64 ($5.72 / $21.90 * $25.42 = $6.64) and Irrigation is $5.72 (COS-based winter water storage rate, as determined in this Study).

Step 4: The total cost of return flows is $18.78 for M&I ($25.42 - $6.64 = $18.78) and $16.18 for Irrigation ($21.90 - $5.72 = $16.18).

Note:

$/ac-ft = dollar(s) per acre-foot

The cost of return flow water was scaled to reflect a full ac-ft quantity for M&I ($25.42) and Irrigation ($21.90). However, unlike Project Water, return flows cannot be stored and are delivered on-demand. An M&I and Irrigation on-demand credit, or the cost of foregone storage opportunities ($6.64 for M&I and $5.72 for Irrigation) is applied. After scaling to reflect a full ac-ft of water, and application of the return flow credit, an associative cost basis per ac-ft was calculated to be $18.78 (M&I) and $16.18 (Irrigation).

3.7 Ability-to-Pay

Ability-to-pay, or payment capacity, for irrigators has been an important factor in setting Project Water rates, based on the history of the District's ability-to-pay negotiations with Reclamation. Ability-to-pay is not a COS method, but rather follows guidance published by Reclamation. Based on this guidance, and analysis of recent regional farm data, the ability-to-pay rate for the irrigation customer class is determined to be $22.72 per ac-ft. A complete ability-to-pay analysis and report is included in Appendix F.

The methodology has several inherent assumptions that make a uniform application to the District's irrigation customers difficult. For instance, the payment capacity method assumes a representative farm size, and a full-time family farm that relies primarily on farm income for household income. Census data shows that full-time family farming may be true for less than 50 percent of farming operations in Southeastern Colorado. Additionally, the method does not account for the supplemental nature of the

District's water to the farming operation, and one that is typically the last increment of water applied to a crop (i.e., late season irrigation after other sources have been exhausted).

Understanding these and other assumptions is important when comparing ability-to-pay rates with new water rates proposed by the District. While the ability-to-pay pricing method has limitations, it does provide a sound analytical basis for understanding irrigation customer class pricing constraints.

3.8 Summary and Conclusions

The SECWCD COS analysis was performed using two methods to determine the cost per unit of delivering an ac-ft of Project water: uniform and split allocation. The resulting uniform net COS for all units was $14.29 per ac-ft for the 2020 test year. The net COS using the split allocation method was $15.25 per ac-ft for M&I customers and $13.14 per ac-ft for Irrigation customers. The split allocation method of analysis is recommended and was used in the design of proposed Project Water rates, as described in Section 4.

4. Water Rate Design

4.1 Introduction

The purpose of rate design is to develop a schedule of proposed rates that recover system revenue requirements based on a number of factors, including class COS, ease of administration and understanding, and recognition of SECWCD's unique regional economic context. Initial rate design options included existing and modified rate structures and several alternatives for the timing of increases. Numerous initial rate design options were considered. Three design options were presented and ultimately one recommended to SECWCD's Executive Committee and are described in this section.

It should be noted that the 10-year Forecast Period does not obligate the SECWCD Board to accept a rate for the entire 10-year period. The Board sets a rate for one year only, defined as the Approved Rate or Rate Year. A 3-year period, defined as the Rate Period, was incorporated into this study to align with the SECWCD Business Plan of programs, projects, and actions anticipated from 2020 to 2022. The designation of the Rate Period is defined because a cost of service will be performed every 3 years.

4.1.1 Assumptions

The assumptions used during the rate design are as follows:

- Current surcharges remain unchanged throughout the Forecast Period.
- Annual irrigation return flow is 6,470 ac-ft (based on 20-year historical average).
- Annual municipal return flow is 1,000 ac-ft (based on 20-year historical average).
- Annual winter water storage is 42,000 ac-ft (based on 20-year historical average).
- Annual carry-over storage is 123,944 ac-ft (based on 10-year historical average).
- The carry-over rate was phased in over 5 years, beginning in 2021 (no carry-over rate in 2020, 25 percent per year thereafter).
- Transfers of $300,000 (of the $600,000 to $700,000 deficit) annually are made from the Water Subfund to the District Operations Subfund. This is a simplifying assumption to support the District Operations Subfund while maintaining reasonable ending balances over the Forecast Period. Actual transfers will vary from the forecast.
- Annual rate increases of 5 percent per year for phase-in scenarios. This is a simplifying assumption that generates similar net revenue over the 10-year period (a compensating rate increase). Actual rate increases will vary from the forecast.

4.2 Current Water Rates and Other User Fees and Charges

4.2.1 Water Rates

As previously discussed, SECWCD's current rate structure includes rates and various surcharges. The 2019 rate structure is provided in Table 4-1.

Table 4-1. Current Rate Structure

Description	Current Water Rate and Surcharges ($/ac-ft)					
	Current Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Current Total Charge ($)
Project Water Sales						
Irrigation	7.00	0.50	0.75	0.75	--	9.00
Municipal	7.00	0.50	1.50	0.75	--	9.75
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	7.00	0.50	0.75	0.75	2.60	11.60
Municipal used for Well Augmentation	7.00	0.50	1.50	0.75	2.60	12.35
Storage Charges						
Winter Water Storage	2.80	0.25	--	0.75	--	3.80
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Return Flows	6.00	0.50	--	0.75	--	7.25

The water rate of $7.00 per ac-ft has remained the same for over 20 years. The surcharges have been added at various times throughout the past, as per Section 1.5, Ratemaking Philosophy.

4.2.2 Storage Rates

SECWCD charges its customers the water rate and surcharges in the first year of a customer's allocation. If customers do not use their entire allocation in the first year, in the following year they are only charged the surcharges for carry-over project water, amounting to $3.00 per ac-ft from surcharges. M&I customers also are allowed one year of storage without charge (included in their first allocation) but Irrigation customers cannot carry over water.

4.2.3 Surcharges

The surcharges that generate additional revenue for SECWCD include:

- Safety of Dams
- Water Activity Enterprise
- Environmental Stewardship
- Augmentation

These charges are discussed in Section 1.5, Ratemaking Philosophy, and generate approximately $600,000 per year in revenue. Revenue from surcharges was assumed to remain constant over the Forecast Period, using the 2019 budget as a basis. A detailed examination and analysis of all surcharges was not performed as part of this study. Instead, all surcharge revenues were credited in the COS allocation process (to avoid double counting of such revenue) and were assumed to remain in place. If a given surcharge was to be eliminated, the cost of service would need to be re-performed. Jacobs' recommendation would be to include a more detailed examination of the surcharges in the District's next rate study, in approximately 3 years.

4.3 Water Rate Design

4.3.1 Initial Rate Design Options

Several initial rate design options were considered over the course of this Study, including utilizing uniform rates versus split allocation rates, varying the timing of increases, and/or basing rates on ability-to-pay versus COS. The rate design options examined for this study included:

- **Initial Option A**—Rates were designed to achieve a uniform COS for both customer classes with a 1-year phase-in period.
- **Initial Option B**—Rates were designed to achieve a uniform COS for both customer classes with a 5-year phase-in period.
- **Initial Option C**—Rates were designed to achieve a uniform COS for both customer classes with a 10-year phase-in period.
- **Initial Option D**—Rates were designed to achieve a split allocation COS differential between M&I and Irrigation customer classes with a 1-year phase-in period.
- **Initial Option E**—Rates were designed to achieve a split allocation COS differential between M&I and Irrigation customer classes with a 5-year phase-in period.
- **Initial Option F**—Rates were designed to achieve a split allocation COS differential between M&I and Irrigation customer classes with a 10-year phase-in period.
- **Initial Option G**—Irrigation rates were increased to the ability-to-pay rate via equal annual percentage increases. The M&I rates were also increased to meet revenue requirements. The ability-to-pay estimate was higher than the calculated 2029 COS rate, rendering this option irrelevant.

Three options were presented at the July 25, 2019, Workshop No. 4 with the Executive Committee.

- **Option 1—Aggressive—1-year Phase-In to COS, Split Allocation**—Water rates would immediately increase to the calculated cost of service in 2020 and remain flat thereafter ("one and done"). Storage charges for carryover project water would phase-in over a 4-year period (from 2021 through 2024) following a 1-year implementation delay.
- **Option 2—Moderate—5-year Phase-In to COS, Split Allocation**—Water rates would be phased into the calculated cost of service over a 5-year period and remain flat thereafter. Storage charges for carryover project water would phase-in over a 4-year period (from 2021 through 2024) following a 1-year implementation delay. A 5 percent annual increase would also be applied to the first 5 years of the proposed water and storage rates (from 2020 through 2024).
- **Option 3—Gradual—10-year Phase-In to COS, Split Allocation**—Water rates would be smoothed over the 10-year period with approximately proportionate annual increases. A 5 percent annual increase would also be applied to all 10 years of forecasted water and storage rates (2020 through 2029).

These three rate design options were used for the rate design portion of the Study.

4.3.2 Final Rate Design

As a result of the rate design analysis and review, the total proposed charge to the customer including surcharges for all three options over the 3-year Rate Period are shown in Tables 4-2 through 4-10. FY 2020 is the Rate Year. FY 2021 and FY 2022 are Advisory Years.

Table 4-2. Proposed Water Rates and Total Charges – Option 1 – Aggressive – FY 2020

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	13.14	0.50	0.75	0.75	--	15.14
Municipal	15.25	0.50	1.50	0.75	--	18.00
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	13.14	0.50	0.75	0.75	2.60	17.74
Municipal used for Well Augmentation	15.25	0.50	1.50	0.75	2.60	20.60
Storage Charges						
Winter Water Storage*	5.72	0.25	--	0.75	--	6.72
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	16.18	0.50	--	0.75	--	17.43
Municipal	18.78	0.50	--	0.75	--	20.03

* $2.80 transferred to Reclamation

Table 4-3. Proposed Water Rates and Total Charges – Option 1 – Aggressive – FY 2021

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	13.14	0.50	0.75	0.75	--	15.14
Municipal	15.25	0.50	1.50	0.75	--	18.00
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	13.14	0.50	0.75	0.75	2.60	17.74
Municipal used for Well Augmentation	15.25	0.50	1.50	0.75	2.60	20.60
Storage Charges						
Winter Water Storage*	5.72	0.25	--	0.75	--	6.72
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	16.18	0.50	--	0.75	--	17.43
Municipal	18.78	0.50	--	0.75	-	20.03

* $2.80 transferred to Reclamation

Table 4-4. Proposed Water Rates and Total Charges – Option 1 – Aggressive – FY 2022

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	13.14	0.50	0.75	0.75	--	15.14
Municipal	15.25	0.50	1.50	0.75	--	18.00
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	13.14	0.50	0.75	0.75	2.60	17.74
Municipal used for Well Augmentation	15.25	0.50	1.50	0.75	2.60	20.60
Storage Charges						
Winter Water Storage*	5.72	0.25	--	0.75	--	6.72
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	16.18	0.50	--	0.75	--	17.43
Municipal	18.78	0.50	--	0.75	--	20.03

* $2.80 transferred to Reclamation

Table 4-5. Proposed Water Rates and Total Charges – Option 2 – Moderate – FY 2020

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	8.64	0.50	0.75	0.75	--	10.64
Municipal	9.08	0.50	1.50	0.75	--	11.83
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	8.64	0.50	0.75	0.75	2.60	13.24
Municipal used for Well Augmentation	9.08	0.50	1.50	0.75	2.60	14.43
Storage Charges						
Winter Water Storage*	3.41	0.25	--	0.75	--	4.41
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	8.44	0.50	--	0.75	--	9.69
Municipal	8.99	0.50	--	0.75	--	10.24

* $2.80 transferred to Reclamation

Table 4-6. Proposed Water Rates and Total Charges – Option 2 – Moderate – FY 2021

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	10.37	0.50	0.75	0.75	--	12.37
Municipal	11.27	0.50	1.50	0.75	--	14.02
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	10.37	0.50	0.75	0.75	2.60	14.97
Municipal used for Well Augmentation	11.27	0.50	1.50	0.75	2.60	16.62
Storage Charges						
Winter Water Storage*	4.05	0.25	--	0.75	--	5.05
Carry-Over Project Water	1.28	1.00	1.25	0.75	--	4.28
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	11.01	0.50	--	0.75	--	12.26
Municipal	12.13	0.50	--	0.75	--	13.38

* $2.80 transferred to Reclamation

Table 4-7. Proposed Water Rates and Total Charges – Option 2 – Moderate – FY 2022

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	12.17	0.50	0.75	0.75	--	14.17
Municipal	13.57	0.50	1.50	0.75	--	16.32
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	12.17	0.50	0.75	0.75	2.60	16.77
Municipal used for Well Augmentation	13.57	0.50	1.50	0.75	2.60	18.92
Storage Charges						
Winter Water Storage*	4.72	0.25	--	0.75	--	5.72
Carry-Over Project Water	3.92	1.00	1.25	0.75	--	6.92
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	13.70	0.50	--	0.75	--	14.95
Municipal	15.42	0.50	--	0.75	--	16.67

* $2.80 transferred to Reclamation

Table 4-8. Proposed Water Rates and Total Charges – Option 3 – Gradual – FY 2020

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	7.99	0.50	0.75	0.75	--	9.99
Municipal	8.22	0.50	1.50	0.75	--	10.97
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	7.99	0.50	0.75	0.75	2.60	12.59
Municipal used for Well Augmentation	8.22	0.50	1.50	0.75	2.60	13.57
Storage Charges						
Winter Water Storage*	3.11	0.25	--	0.75	--	4.11
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	7.37	0.50	--	0.75	--	8.62
Municipal	7.64	0.50	--	0.75	--	8.89

* $2.80 transferred to Reclamation

Table 4-9. Proposed Water Rates and Total Charges – Option 3 – Gradual – FY 2021

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	9.03	0.50	0.75	0.75	--	11.03
Municipal	9.50	0.50	1.50	0.75	--	12.25
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	9.03	0.50	0.75	0.75	2.60	13.63
Municipal used for Well Augmentation	9.50	0.50	1.50	0.75	2.60	14.85
Storage Charges						
Winter Water Storage*	3.43	0.25	--	0.75	--	4.43
Carry-Over Project Water	0.64	1.00	1.25	0.75	--	3.64
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	8.81	0.50	--	0.75	--	10.06
Municipal	9.37	0.50	--	0.75	--	10.62

* $2.80 transferred to Reclamation

Table 4-10. Proposed Water Rates and Total Charges – Option 3 – Gradual – FY 2022

Description	Proposed Water Rate and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	10.12	0.50	0.75	0.75	--	12.12
Municipal	10.85	0.50	1.50	0.75	--	13.60
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	10.12	0.50	0.75	0.75	2.60	14.72
Municipal used for Well Augmentation	10.85	0.50	1.50	0.75	2.60	16.20
Storage Charges						
Winter Water Storage*	3.76	0.25	--	0.75	--	4.76
Carry-Over Project Water	1.97	1.00	1.25	0.75	--	4.97
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	10.32	0.50	--	0.75	--	11.57
Municipal	11.18	0.50	--	0.75	--	12.43

* $2.80 transferred to Reclamation

As shown, Option 1 (aggressive) results in the highest rates over the Rate Period, Option 2 (moderate) the second highest, and Option 3 (gradual) the lowest rates during the Rate Period.

The current and projected Project Water rates for the Forecast Period are shown in Tables 4-11 through 4-13. Note that these are the water rates only, not the total charge to the customer including surcharges. The first 3 years of the Forecast Period are highlighted to call attention to the Rate Period, after which the District will undertake an updated rate study and the rates are likely to change again. The Board of Directors will annually only approve the first year of the 3-year Rate Period. Also, recall that the carry-over rate is phased in over 5 years for all options.

Table 4-11. Current and Proposed Water Rates – Option 1 – Aggressive

Description	Current ($/ac-ft)	2020 ($/ac-ft)	2021 ($/ac-ft)	2022 ($/ac-ft)	2023 ($/ac-ft)	2024 ($/ac-ft)	2025 ($/ac-ft)	2026 ($/ac-ft)	2027 ($/ac-ft)	2028 ($/ac-ft)	2029 ($/ac-ft)
Project Water Sales											
Irrigation	7.00	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14
Municipal	7.00	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	7.00	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14	13.14
Municipal used for Well Augmentation	7.00	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
Storage Charges											
Winter Water Storage*	2.80	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.72
Carry-Over Project Water	--	--	2.97	5.93	8.90	11.86	11.86	11.86	11.86	11.86	11.86
If-and-When Storage											
In District	--	--	--	--	--	--	--	--	--	--	--
Out of District	--	--	--	--	--	--	--	--	--	--	--
Aurora	--	--	--	--	--	--	--	--	--	--	--
Project Water Return Flows											
Irrigation Return Flows	6.00	16.18	16.18	16.18	16.18	16.18	16.18	16.18	16.18	16.18	16.18
Municipal Return Flows	6.00	18.78	18.78	18.78	18.78	18.78	18.78	18.78	18.78	18.78	18.78

*$2.80 transferred to Reclamation

Table 4-12. Current and Proposed Water Rates – Option 2 – Moderate

Description	Current ($/ac-ft)	2020 ($/ac-ft)	2021 ($/ac-ft)	2022 ($/ac-ft)	2023 ($/ac-ft)	2024 ($/ac-ft)	2025 ($/ac-ft)	2026 ($/ac-ft)	2027 ($/ac-ft)	2028 ($/ac-ft)	2029 ($/ac-ft)
Project Water Sales											
Irrigation	7.00	8.64	10.37	12.17	14.08	16.06	16.06	16.06	16.06	16.06	16.06
Municipal	7.00	9.08	11.27	13.57	15.98	18.51	18.51	18.51	18.51	18.51	18.51
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	7.00	8.64	10.37	12.17	14.08	16.06	16.06	16.06	16.06	16.06	16.06
Municipal used for Well Augmentation	7.00	9.08	11.27	13.57	15.98	18.51	18.51	18.51	18.51	18.51	18.51
Storage Charges											
Winter Water Storage*	2.80	3.41	4.05	4.72	5.43	6.19	6.19	6.19	6.19	6.19	6.19
Carry-Over Project Water	--	--	1.28	3.92	8.05	13.77	13.77	13.77	13.77	13.77	13.77
If-and-When Storage											
In District	--	--	--	--	--	--	--	--	--	--	--
Out of District	--	--	--	--	--	--	--	--	--	--	--
Aurora	--	--	--	--	--	--	--	--	--	--	--
Project Water Sales used for Well Augmentation											
Irrigation Return Flows	6.00	8.44	11.01	13.70	16.53	19.47	19.47	19.47	19.47	19.47	19.47
Municipal Return Flows	6.00	8.99	12.13	15.42	18.88	22.49	22.49	22.49	22.49	22.49	22.49

*$2.80 transferred to Reclamation

Table 4-13. Current and Proposed Water Rates – Option 3 – Gradual

Description	Current ($/ac-ft)	2020 ($/ac-ft)	2021 ($/ac-ft)	2022 ($/ac-ft)	2023 ($/ac-ft)	2024 ($/ac-ft)	2025 ($/ac-ft)	2026 ($/ac-ft)	2027 ($/ac-ft)	2028 ($/ac-ft)	2029 ($/ac-ft)
Project Water Sales											
Irrigation	7.00	7.99	9.03	10.12	11.27	12.47	13.74	15.06	16.46	17.92	19.50
Municipal	7.00	8.22	9.50	10.85	12.26	13.75	15.31	16.95	18.66	20.47	22.31
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	7.00	7.99	9.03	10.12	11.27	12.47	13.74	15.06	16.46	17.92	19.50
Municipal used for Well Augmentation	7.00	8.22	9.50	10.85	12.26	13.75	15.31	16.95	18.66	20.47	22.31
Storage Charges											
Winter Water Storage*	2.80	3.11	3.43	3.76	4.11	4.49	4.87	5.28	5.71	6.16	6.65
Carry-Over Project Water	--	--	0.64	1.97	4.03	6.90	8.49	10.16	11.93	13.78	15.67
If-and-When Storage											
In District	--	--	--	--	--	--	--	--	--	--	--
Out of District	--	--	--	--	--	--	--	--	--	--	--
Aurora	--	--	--	--	--	--	--	--	--	--	--
Project Water Sales used for Well Augmentation											
Irrigation Return Flows	6.00	7.37	8.81	10.32	11.91	13.58	15.33	17.16	19.09	21.12	23.22
Municipal Return Flows	6.00	7.64	9.37	11.18	13.09	15.08	17.18	19.39	21.70	24.13	26.66

*$2.80 transferred to Reclamation

As shown, Option 1 (aggressive) results in the lowest rate by the end of the Forecast Period, Option 2 (moderate) is the next highest rate, and Option 3 (gradual) has the highest rate by the end of the Forecast Period.

4.4 Projected District Revenue at Proposed Water Rates

The projected additional revenue to the District from proposed rates compared to the additional revenue requirement from Section 2, Financial Plan, is shown in Tables 4-14 through 4-16.

It should be noted that the 10-year Forecast Period does not obligate the SECWCD Board to accept a rate for the entire 10-year period. The Board sets a rate for 1 year only, defined as the Approved Rate or Rate Year. A 3-year period, defined as the Rate Period, was incorporated into this study to align with the SECWCD Business Plan of programs, projects and actions anticipated from 2020 to 2022. The designation of the Rate Period is defined because a cost of service will be performed every 3 years.

The following tables show the changes in annual revenue under each of the three options, compared to the revenue requirements. Note that the Rate Year is highlighted in dark green, while the Advisory Years are shown in light green. The additional revenue generated for the Rate Year is highlighted in light blue.

Table 4-14. Additional District Revenue from Proposed Rates – Option 1 – Aggressive

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Project water sales	$307,000	$307,000	$307,000	$307,000	$307,000	$307,000	$307,000	$307,000	$307,000	$307,000	$3,067,000
Winter water storage (District portion)	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	1,226,000
Carry-over project water sales	--	367,000	735,000	1,102,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	11,025,000
Return flow water sales	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	79,000	786,000
Total Projected Additional Revenue	**508,000**	**875,000**	**1,243,000**	**1,610,000**	**1,978,000**	**1,978,000**	**1,978,000**	**1,978,000**	**1,978,000**	**1,978,000**	**16,104,000**
Required Revenue (Both Funds)	**2,308,000**	**1,307,000**	**1,266,000**	**1,444,000**	**1,489,000**	**2,414,000**	**1,389,000**	**1,547,000**	**1,526,000**	**2,537,000**	**17,227,000**
% Difference Projected and Required Revenue	-354%	-49%	-2%	10%	25%	-22%	30%	22%	23%	-28%	-7%

Option 1 (aggressive) produces $508,000 in additional revenue in the Rate Year, $875,000 in FY 2021, and $1,243,000 in FY 2022, for a total of $2,626,000 over the Rate Period. Note that this includes higher water sales revenue than the existing water sales, the new revenue generated by the introduction of winter water storage and carry-over storage charges, and higher return flow water sales revenue than the existing return flow water sales. Recall that all surcharges remain the same, thus, there is no additional revenue from these items.

Table 4-15. Additional District Revenue from Proposed Rates – Option 2 – Moderate

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Project water sales	$79,000	$162,000	$250,000	$341,000	$437,000	$437,000	$437,000	$437,000	$437,000	$437,000	$3,456,000
Winter water storage (District portion)	26,000	53,000	81,000	110,000	142,000	142,000	142,000	142,000	142,000	142,000	1,124,000
Carry-over project water sales	--	158,000	486,000	998,000	1,706,000	1,706,000	1,706,000	1,706,000	1,706,000	1,706,000	11,879,000
Return flow water sales	19,000	39,000	59,000	81,000	104,000	104,000	104,000	104,000	104,000	104,000	819,000
Total Projected Additional Revenue	**124,000**	**412,000**	**876,000**	**1,530,000**	**2,389,000**	**2,389,000**	**2,389,000**	**2,389,000**	**2,389,000**	**2,389,000**	**17,278,000**
Required Revenue (Both Funds)	**2,308,000**	**1,307,000**	**1,266,000**	**1,444,000**	**1,489,000**	**2,414,000**	**1,389,000**	**1,547,000**	**1,526,000**	**2,537,000**	**17,227,000**
% Difference Projected and Required Revenue	-1,766%	-218%	-45%	6%	38%	-1%	42%	35%	36%	-6%	0%

Option 2 (moderate) produces $124,000 in additional revenue in the Rate Year, $412,000 in FY 2021, and $876,000 in FY 2022, for a total of $1,412,000 over the Rate Period.

Table 4-16. Additional District Revenue from Proposed Rates – Option 3 – Gradual

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Project water sales	$47,000	$96,000	$148,000	$202,000	$259,000	$319,000	$382,000	$448,000	$518,000	$590,000	$3,012,000
Winter water storage (District portion)	13,000	26,000	40,000	55,000	71,000	87,000	104,000	122,000	141,000	162,000	822,000
Carry-over project water sales	--	79,000	244,000	500,000	855,000	1,053,000	1,260,000	1,478,000	1,707,000	1,942,000	9,118,000
Return flow water sales	11,000	22,000	33,000	45,000	58,000	72,000	86,000	100,000	116,000	132,000	674,000
Total Projected Additional Revenue	**70,000**	**224,000**	**466,000**	**803,000**	**1,243,000**	**1,531,000**	**1,832,000**	**2,150,000**	**2,482,000**	**2,826,000**	**13,626,000**
Required Revenue (Both Funds)	**2,308,000**	**1,307,000**	**1,266,000**	**1,444,000**	**1,489,000**	**2,414,000**	**1,389,000**	**1,547,000**	**1,526,000**	**2,537,000**	**17,227,000**
% Difference Projected and Required Revenue	-3,181%	-485%	-172%	-80%	-20%	-58%	24%	28%	39%	10%	-26%

Option 3 (gradual) produces $70,000 in additional revenue in the Rate Year, $224,000 in FY 2021, and $466,000 in FY 2022, for a total of $760,000 over the Rate Period.

A comparison of the total projected revenue generated by the proposed rates to the revenue requirement for the three rate design options is provided in Appendix G.

In the early years of the projections, where projected revenues fall short of the indicated revenue requirement, ending fund balances will be utilized to smooth the transition to higher water and storage rates, while maintaining ending cash balances sufficient to fund ongoing operations. Fund balances are restored during the later years of the forecast when projected revenues begin to catch up with the indicated revenue requirement.

The resultant cash flows for the District Operations Subfund and for all three options for the Water Subfund are illustrated on Figures 4-1 through 4-4.

In the first three years of the forecast, proposed rate increases (all three options) generate less than the $1.72 million annual requirement established in Section 2, Financial Plan. During the 3-year Rate Period, Option 1 (aggressive) produces the most additional revenue and Option 3 (gradual) the least.

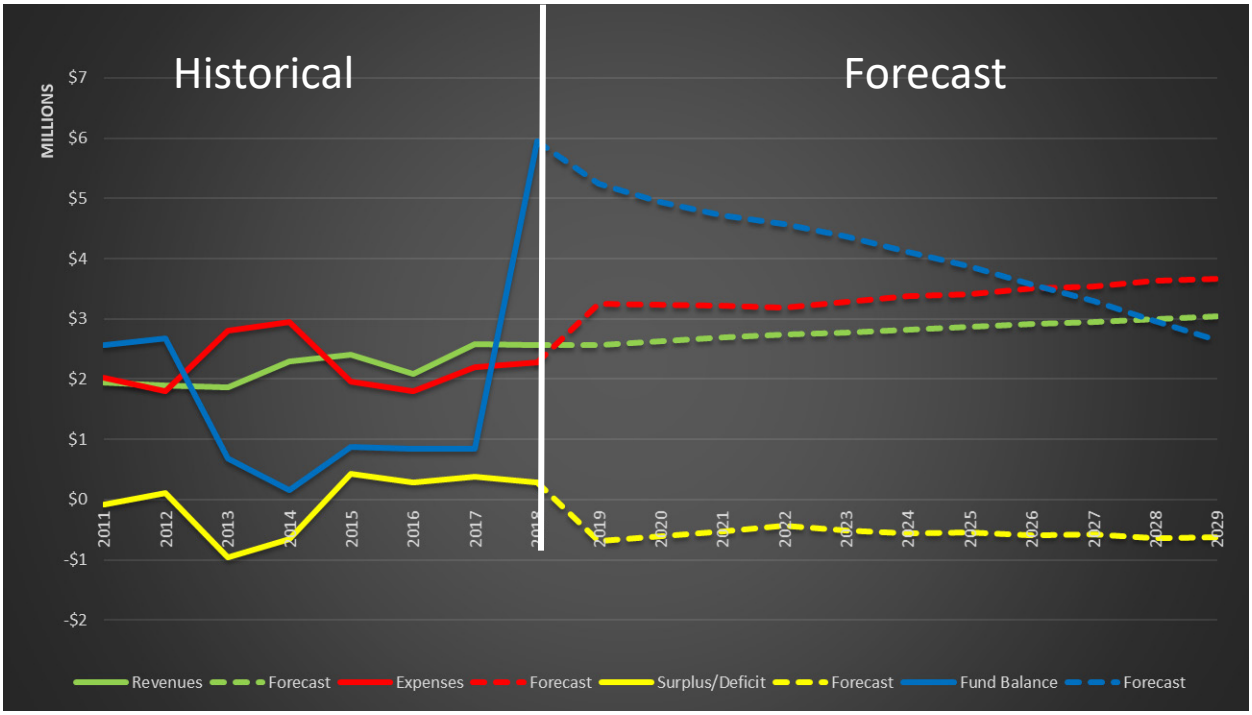


Figure 4-1. Projected Cash Flows – District Operations Subfund – Options 1, 2, and 3

As shown on Figure 4-1, while the District Operations Subfund balance does show a declining balance, it is not nearly as severe as it was in the base case. With the increased revenue from water rates, a transfer of $300,000 annually can comfortably be made from the Enterprise to District Operations to shore up its financial position. Recall that this transfer was merely used for forecasting purposes, but the actual transfers may vary.

The projected cash flows for the Water Subfund under Option 1 (aggressive) are shown on Figure 4-2.

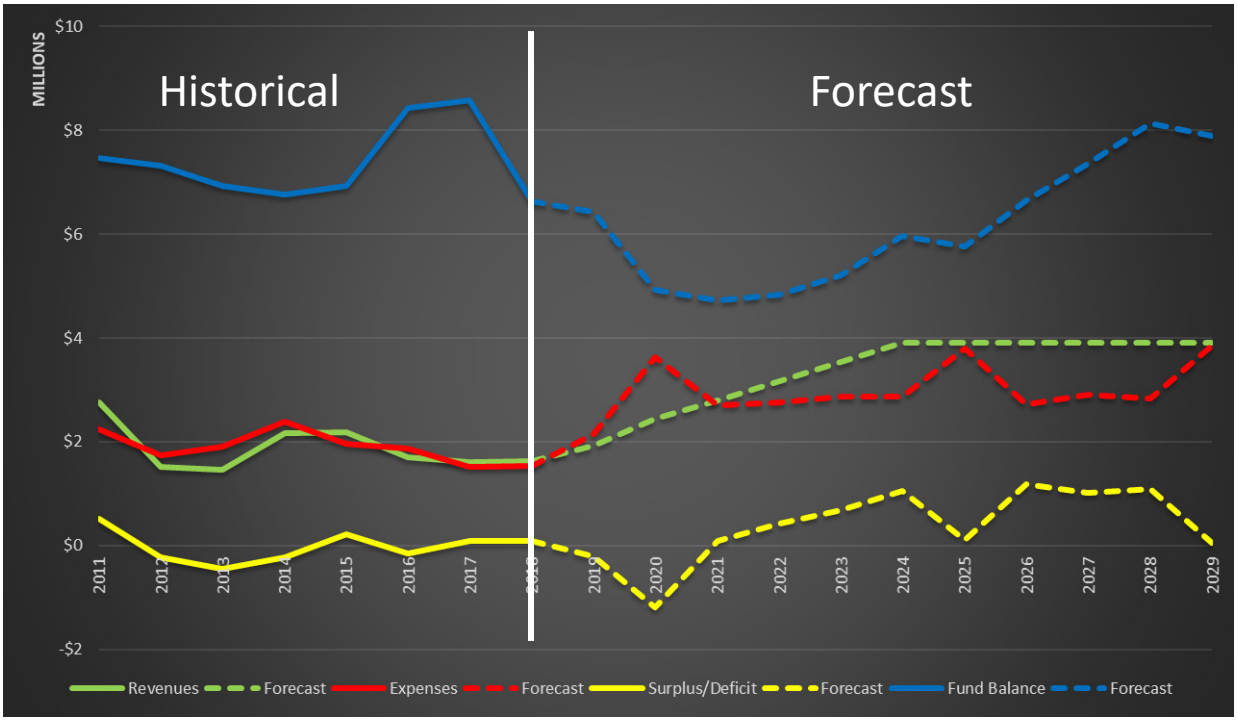


Figure 4-2. Projected Cash Flows – Water Subfund – Option 1 – Aggressive

As shown on Figure 4-2, under Option 1 (aggressive), increased rate revenues end with a fund balance of approximately $8 million in the Water Subfund by the end of the Forecast Period.

The projected cash flows for the Water Subfund under Option 2 (moderate) are shown on Figure 4-3.

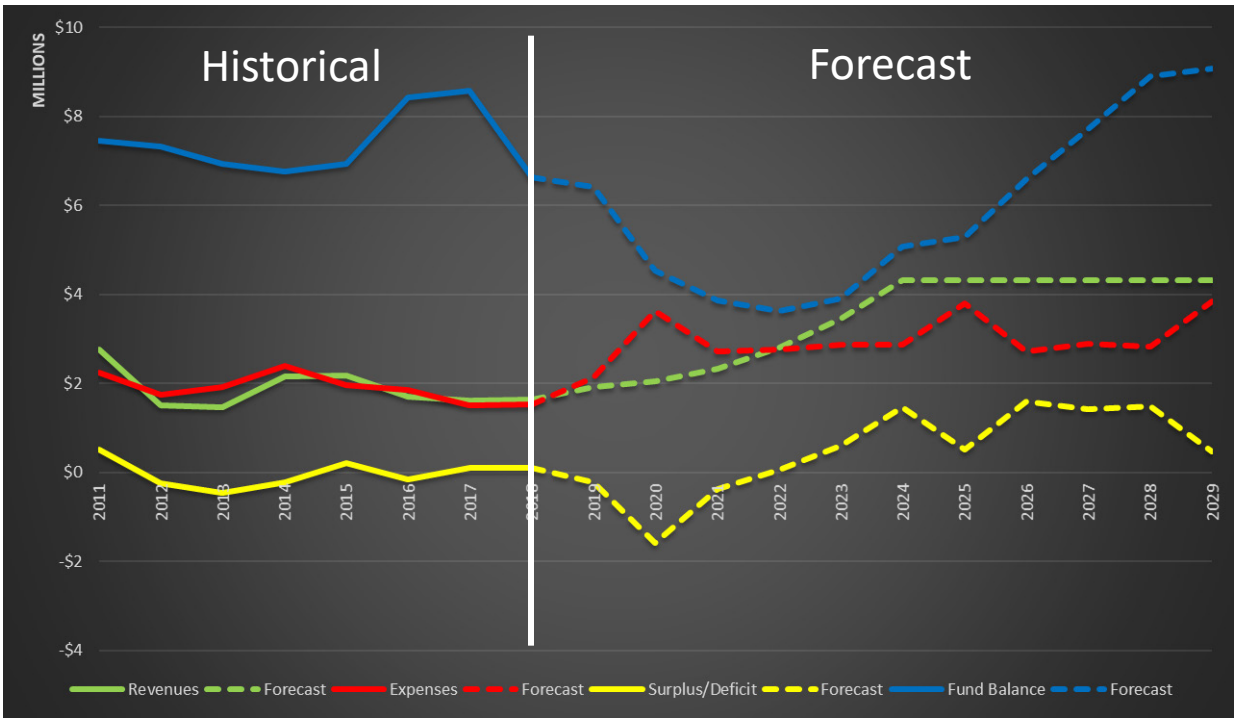


Figure 4-3. Projected Cash Flows – Water Subfund – Option 2 – Moderate

As shown on Figure 4-3, under Option 2 (moderate), the increased rate revenues end with a fund balance of approximately $9 million in the Water Subfund at the end of the Forecast Period.

The projected cash flows for the Water Subfund under Option 3 (gradual) are shown on Figure 4-4.

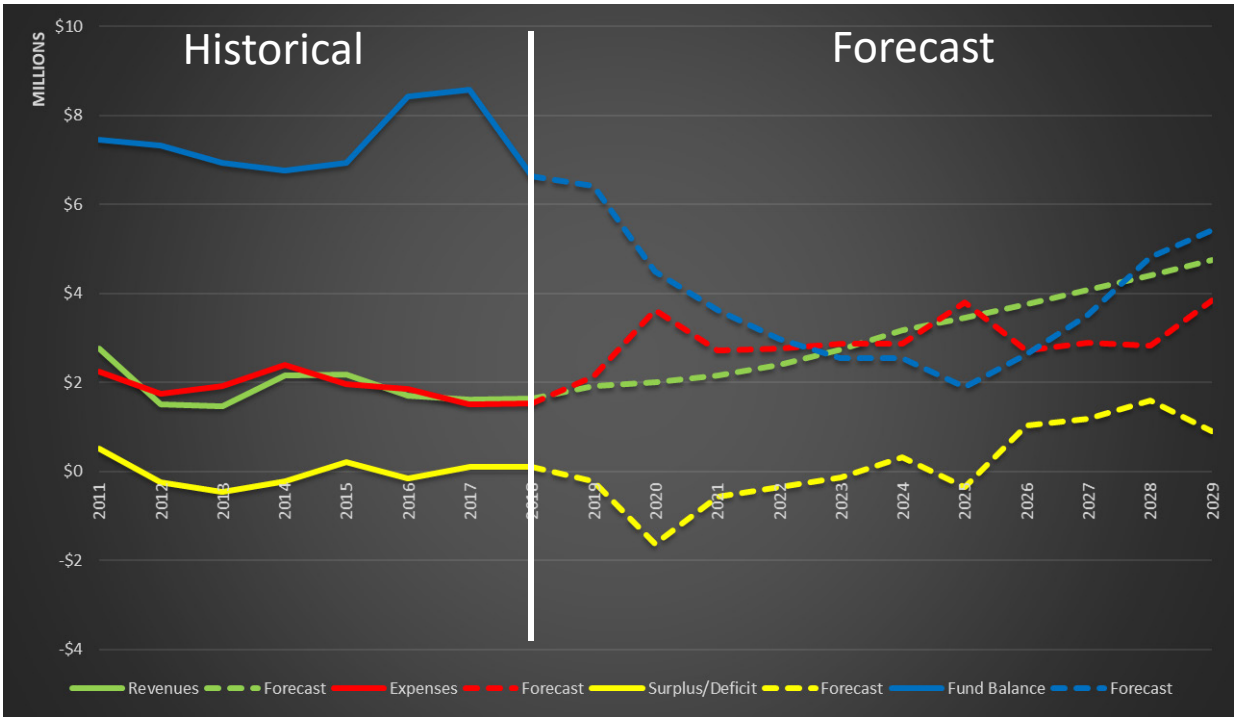


Figure 4-4. Projected Cash Flows – Water Subfund – Option 3 – Gradual

As shown on Figure 4-4, under Option 3 (gradual), increased rate revenues end with a fund balance of nearly $6 million in the Water Subfund by the end of the Forecast Period.

4.5 Risk-Based Impacts on Water Rates

There is a wide range of potential risks facing SECWCD. Examples include:

- Water resources and availability of water
- Electricity production
- Aging infrastructure
- Climate change (e.g., drought and flood cycles)
- Wildfires (leading to sedimentation in reservoirs and reducing storage capacity)
- And many others

The challenge for the District is modeling these risks and identifying the likelihood of occurrence. Managing risk is integral and critical to a larger policy discussion regarding risk mitigation through financial planning—by building sufficient reserves to respond to future risks. The higher the level of risks facing an organization, the higher the level of financial reserves that should be maintained. Figure 4-5 illustrates the simple relationship between risk and reserves.

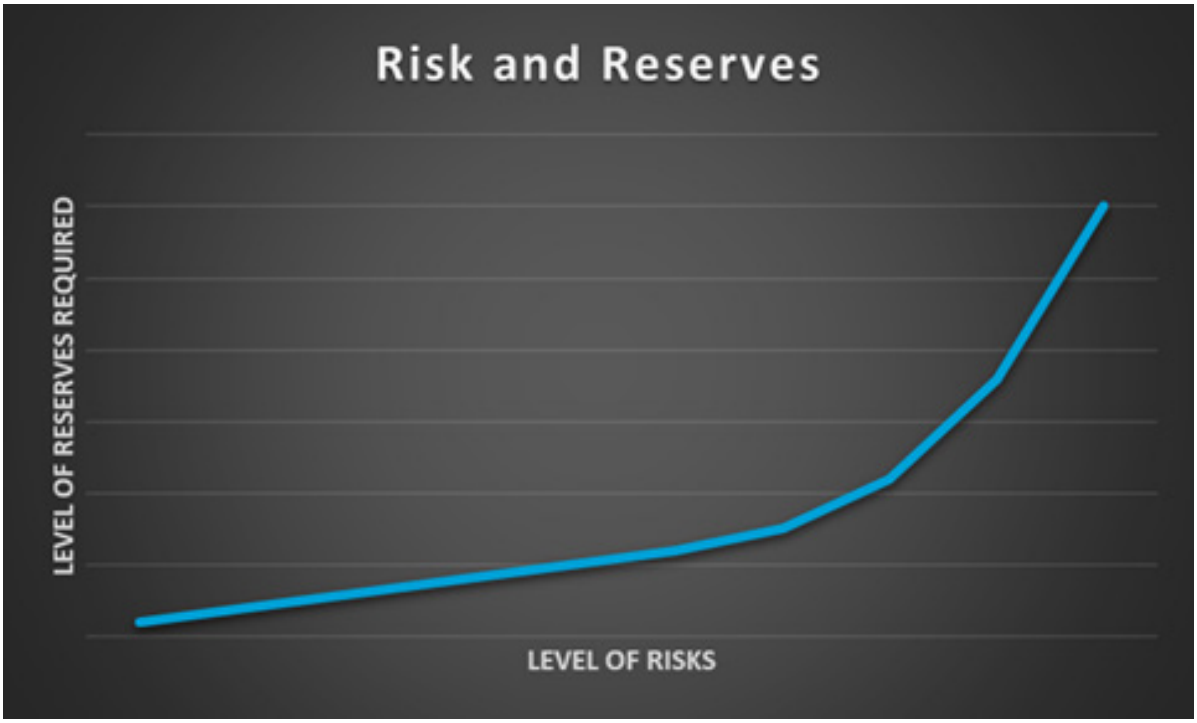


Figure 4-5. Risk Versus Reserves

Figure 4-5 is a representation of the level of risk versus the level of reserves required. As the level of risk increases, so too does the level of reserves required in order to mitigate and respond to risk. The increasingly upward slope of the line indicates that infinite risk requires infinite reserves. Until the District completes initial policy discussions, it would be imprudent to attempt to model risk-based impacts and/or quantify risk-based reserve levels. As such, Jacobs did not include risk-based reserve funding or model risk-based impacts on water rates as part of this Study.

4.6 Summary and Conclusions

A total of seven rate design options were studied at varying levels of detail during this Study. The existing rate structure, with uniform rates for both customer classes, was the basis of several options. Other options applied a COS split-allocation approach combined with a 1-, 5-, or 10-year phase-in period. Yet another series of options was based on ability-to-pay for Irrigation customers. The calculated ability-to-pay rate of $22.72 per ac-ft was higher than the calculated COS rate, eliminating the ability-to-pay option from further consideration.

Each of the proposed options is reasonable for the District's consideration. All three generate sufficient revenues to maintain a fiscally sustainable operation over the Forecast Period, but none of them generates sufficient revenue during the Rate Period. Given the uncertainties and assumptions made in this Study, all three options will require a review and update in 3 years to track progress against the forecast.

Option 1 (aggressive) produces $508,000 in additional revenue in the Rate Year, while Option 2 (moderate) produces $124,000, and Option 3 (gradual) produces $70,000 in additional revenue in the Rate Year.

During the Rate Period (2020 to 2022), Option 1 produces $2,626,000 in additional revenue or about 54 percent of the revenue requirement during this time. Option 2 produces $1,412,000 in additional revenue during the Rate Period, or 29 percent of the revenue requirement. Option 3 produces just $760,000, or about 16 percent of the revenue requirement during the Rate Period.

It is recommended that the Board approve Option 1 (aggressive) in order to begin eliminating deficits and to meet the revenue requirement. It is further recommended that another rate study is undertaken in 3 years to evaluate the progress of this approach.

5. Benchmarking Analysis

5.1 Introduction

Jacobs performed a metric benchmarking analysis of several key measures associated with SECWCD's staffing, efficiency, spending, and rates related to the Fry-Ark system. Metric benchmarking is a quantitative comparative assessment of organizational performance, normally expressed as ratios. External benchmarking—comparing an organization to similar organizations—is widely used to establish an organization's relative efficiency and effectiveness within an industry. However, such comparisons have limitations, as no two organizations operate under exactly the same conditions.

In addition, the specific characteristics of large water providers such as SECWCD can vary widely. Differences in service area density, topography, climate, water resources availability, pumping and/or treatment processes, environmental regulations, service-specific funding source(s), and political governance can cause external metric benchmarking to result in ambiguous conclusions. Nevertheless, metric benchmarking can be a useful starting point for identifying areas to be targeted for further evaluation and for providing supplemental information to be used in a more detailed analysis. As such, it is recommended that the results of this benchmarking effort be used as a starting point.

While the comparisons made between SECWCD and other mid- to large-sized water districts indicate there may be some ability to increase staffing levels or finance a larger portion of the capital program with debt, the benchmarking results should be assessed along with supplemental evaluations before changes are made. These evaluations may include assessment of efficient work practices, initiation of proactive asset management, and a review of capital program funding strategies.

5.2 Survey Group

While industry data sources are available for municipal water utilities, in general, benchmarking data is not widely available for large raw water providers such as SECWCD. As such, the benchmarking data was sourced from a survey group comprising several large water providers in the western United States:

- CAWCD—Central Arizona Water Conservancy District
- SNWA—Southern Nevada Water Authority
- CUWCD—Central Utah Water Conservancy District
- TRWD—Tarrant Regional Water District (Texas)
- NCWCD—Northern Colorado Water Conservancy District
- Denver Water (Colorado)
- OID—Oakdale Irrigation District (California)
- CNPPID—Central Nebraska Public Power and Irrigation District

Depending on the specific benchmarking criteria, data from the survey group was adjusted to compensate for differences in operating, financial, or other characteristics. For example, the "source of supply" operations and financial data from Denver Water was extracted for use in the benchmarking analysis rather than its retail water operations and financial data.

5.3 Benchmarking Measures

Metric benchmarking data commonly applied to water utilities across the world is published by a number of water industry associations, including the American Water Works Association, the International Water Association, and the International Benchmarking Network for Water and Sanitation Utilities, among others. However, SECWCD operates in a unique context as the raw water provider for numerous downstream water utilities, industries, and irrigation users.

SECWCD owns fewer assets and carries significantly less debt than the survey group agencies. SECWCD does not currently track asset values related to the original Fry-Ark Project facilities or the assets jointly operated with Reclamation. In addition, based on its risk-averse financial management,

SECWCD carries very little debt. As a result, asset and debt valuation metrics are not readily comparable to similar organizations, and therefore more common business measures related to efficiency and cost-effectiveness were examined for this study, including:

- Staffing Levels—Full-time equivalent (FTE) employees per thousand ac-ft of water delivered
- Total Expenses—Actual total expenses per ac-ft delivered
- Financial Stability
    - Current assets divided by current liabilities (current ratio)
    - Current assets as a percentage of annual revenue

The benchmarking analysis results for these measures are presented graphically in the following sections. A summary of key financial and operating data is included in Section 5.4, Summary of Results. Additional metrics may be derived from the benchmarking data provided in Appendix H, particularly financial ratios related to liabilities, debt-to-assets, debt ratio, return on assets, etc. However, many of these additional financial ratios were deemed inappropriate for comparisons due to SECWCD's unique financial structure and operating context.

5.3.1 Employees per Thousand Acre-Feet Delivered

The employees per thousand ac-ft delivered benchmark is intended to measure employee efficiency. The FTE is used as the measure of total employees to allow data to be normalized around a common measure. Part-time, temporary, and seasonal employees are converted to FTEs based on the total number of compensated hours. A comparison of employees per thousand ac-ft delivered is illustrated on Figure 5-1.

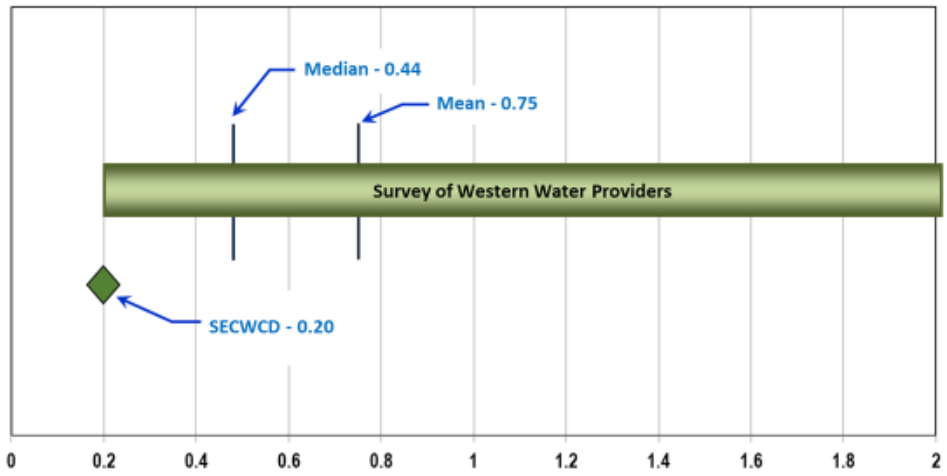


Figure 5-1. Employees per Thousand Acre-Feet Delivered

SECWCD's 0.20 employees per ac-ft delivered is far below the median value and below the range of the survey group organizations. This result is primarily due to the unique relationship between SECWCD and Reclamation, in which Project-related operations and maintenance activities are performed by Reclamation employees. These results, therefore, are not indicative of SECWCD's performance when compared to the survey group and may not be relevant.

5.3.2 Total Expenses per Acre-Foot Delivered

The total expense per ac-ft delivered benchmark includes all O&M expenses and capital costs divided by the total water deliveries. This benchmark is an indicator of the cost efficiency of water delivered. Total expenses per ac-ft delivered are illustrated on Figure 5-2.

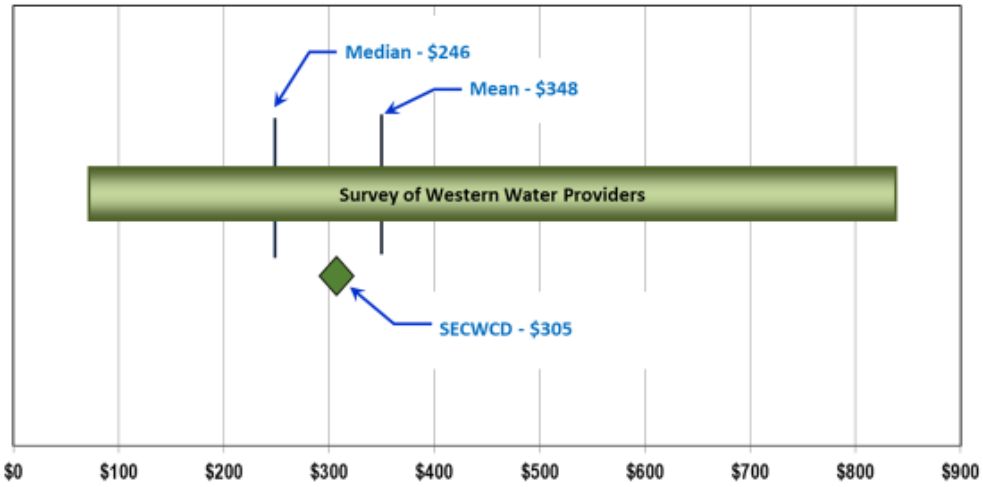


Figure 5-2. Total Expenses per Acre-Foot Delivered

SECWCD's total expenses of $305 per ac-ft delivered is above the median and below the mean values and within the range of the survey group. These results indicate that SECWCD is able to provide an ac-ft of water at a relatively low-to-mid range total cost when compared to the survey group, making it one of the more cost-efficient sources of water in the western United States.

5.3.3 Current Ratio

The current ratio benchmark is a liquidity ratio that measures an organization's ability-to-pay short-term obligations. The higher the current ratio, the more capable the organization is of paying its obligations. The current ratio comparisons are illustrated on Figure 5-3.

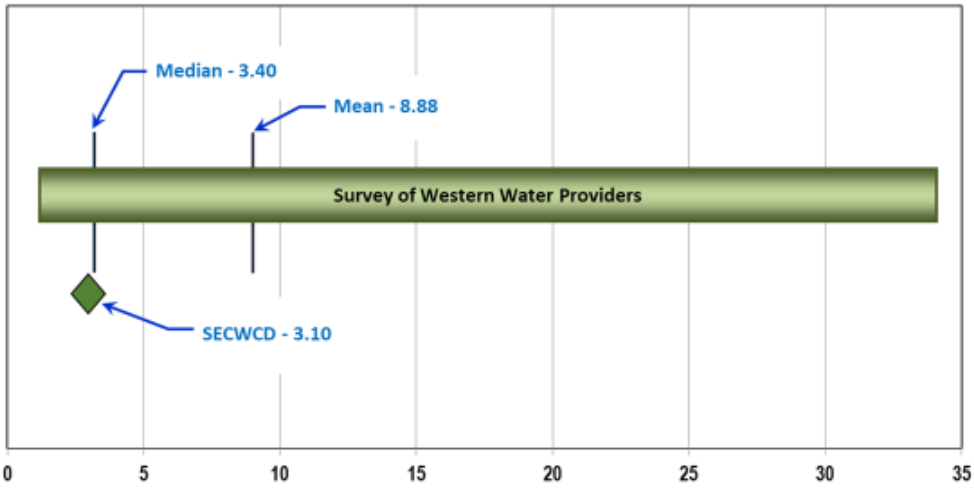


Figure 5-3. Current Ratio Comparisons

SECWCD's current ratio of 3.10 is below the median and mean values, but within the range of the survey group. These results indicate that SECWCD is able to pay back its short-term liabilities (debt and payables) with its short-term assets (cash and receivables) but may face shortfalls due to unexpected expenses. While the organization's financial health may be within range, it should be noted that the current ratio is a snapshot in time and is expected to drop further as cash reserves are depleted to pay for deficits due to normal annual operating expenses in future years.

5.3.4 Current Assets as a Percent of Annual Revenue

The current assets as a percent of annual revenue benchmark is another liquidity ratio that measures an organization's ability to pay its obligations, particularly those resulting from unexpected events. The higher the current assets as a percent of revenue, the more capable the organization is of paying for unforeseen expenses. The current assets as a percent of annual revenue comparisons are illustrated on Figure 5-4.

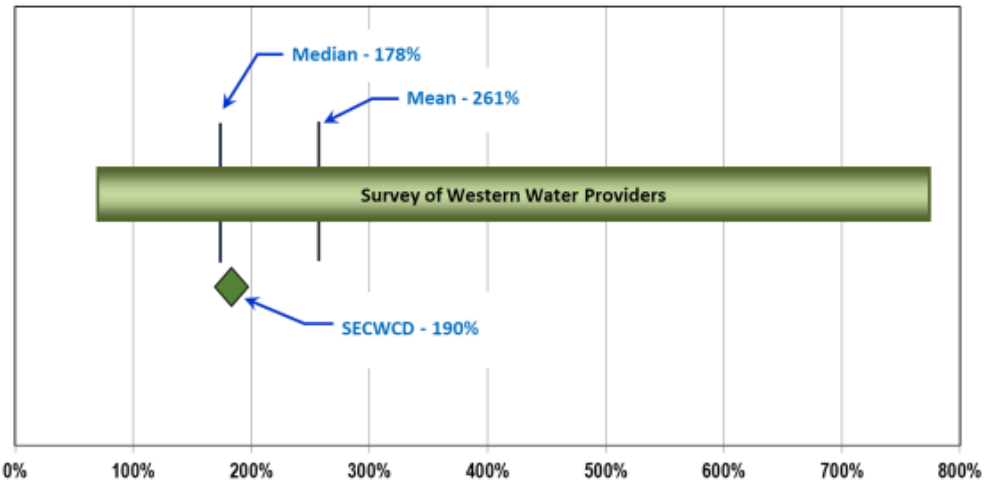


Figure 5-4. Current Assets as a Percent of Annual Revenue

SECWCD's current assets as a percent of annual revenue of 190 percent is above the median and below the mean values, and within the range of the survey group. These results indicate that SECWCD is able to pay back its short-term liabilities but may be vulnerable to unanticipated short-term expenses. While this shows the organization is in good financial health, it should be noted that similar to the current ratio, SECWCD's current assets as a percent of annual is expected to drop further as cash reserves are depleted to pay for deficits due to normal annual operating expenses. The largest component of current assets is cash reserves. By establishing a moderate reserve target, SECWCD would achieve a level of current assets closer to the mean values of the survey group.

5.3.5 Summary of Benchmarking Results

Based on the benchmark comparisons, SECWCD tends to employ fewer staff (FTEs), carry less debt, and have lower total expenses on average than the agencies chosen for the survey group. This may be due, in part, to its history of relatively conservative financial management over the last several decades and its favorable topography, climate, and availability of water resources. The complete set of individual and group benchmarking data is provided in Appendix H, Benchmarking Survey Data.

5.4 Rate Comparisons

In addition to the performance comparisons, information was gathered by SECWCD to identify the range of irrigation water rates charged by irrigation companies and districts in southeastern Colorado. Setting appropriate rates is a context-specific function that depends on a variety of factors, including the cost of providing service, requirements for growth and renewal of a system, and policy objectives that may include support for community goals such as protection of rural open space and/or economic development. Even though these factors affect the setting of appropriate rates, it is useful to compare overall trends in rates and costs to understand whether an organization's rates and charges are keeping up with changes in input costs and with what other similar organizations are finding necessary to meet their missions.

The market-based water rates comparison of $60 per ac-ft were based on several qualitative considerations. Augmentation associations typically supply water for $60 to $70 per ac-ft. Spot market water suppliers such as Pueblo Board of Water Works, Colorado Springs Utilities, or Aurora Water offer water on a year-to-year basis under a bid system. Supplies vary significantly from year to year and cause the cost per ac-ft to also vary drastically. But, generally, water is purchased at an average of $60 per ac-ft in an average year. This compares to SECWCD's most aggressive total charge (water rate and surcharges) of less than $20 per ac-ft.

5.5 Summary and Conclusions

Overall, SECWCD's competitiveness and efficiency fall within the range of probable values indicated from the benchmarking evaluation. Benchmark comparisons indicate that SECWCD compares favorably to the median values for the key per-ac-ft delivered metrics (employees per thousand ac-ft delivered and total expenses per ac-ft delivered). It falls below the current ratios of the survey group. SECWCD's current assets as a percent of annual revenue is also below the group, indicating that it may benefit from increasing its current assets and cash reserves. This metric benchmarking analysis should be used as supplemental information to guide a more detailed analysis of specific areas of interest.

SECWCD's Project Water rate falls below both local irrigation rates in southeastern Colorado, below the municipal water spot market in southeastern Colorado, and generally below similar rates for large raw water providers in the western United States. It is perhaps the lowest raw water rate around.

6. Preferred Water Rate Design

6.1 2020 Water Rates and Fees

During the November 21, 2019, board meeting, the Board voted to implement a portion of the rates recommended in this Study. All members of the Board recognized that SECWCD requires additional revenue to meet the revenue requirements identified in the Study. Jacobs recommended the Option 1 (aggressive) rate increase and split allocation basis, which would recover projected costs over a 10-year period. The Board sets the rates each year. While the Board recognized the need for additional revenue, it was still undecided on several issues. Therefore, the Board agreed to adopt the minimal portion of Option 1 and a uniform allocation basis. “As president of this Board, it is important to me that we be in agreement as we move forward,” President Bill Long stated. “We’ve got to move forward and work together to take care of the future needs of the District.”

Effective for FY 2020, the Board voted 15-0 to:

- Increase water sales rates for both customer classes (uniform rate) to $13.14/ac-ft
- Increase Return Flow rates for both customer classes to $12.00/ac-ft
- Leave storage charges unchanged
- Leave surcharges unchanged

The Board also resolved to further investigate the following issues during the first quarter of 2020:

- Carry-over Storage charges
- Winter water charges
- Return Flow charges
- Split rates for M&I and Agriculture

At the conclusion of its analysis and discussions, the Board reserves the right to revise the rate schedule further, but total charges will not be greater than those proposed under Option 1. It is the intention of the Board to have FY 2020 final charges in place prior to Project water allocations in 2020. In October 2019, the Board voted to extend Jacobs’ contract to study surcharges and how altering them would affect water sales and storage rates. However, all surcharges will remain in place through 2020, at a minimum.

Table 6-1 provides the approved rates as of November 21, 2019, for FY 2020, which are subject to change pending additional Board action in the first quarter of 2020.

Table 6-1. Board Approved Rates – FY 2020 (adopted November 21, 2019)

Description	2020 Rates and Surcharges ($/ac-ft)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	13.14	0.50	0.75	0.75	--	15.14
Municipal	13.14	0.50	1.50	0.75	--	15.89
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	13.14	0.50	0.75	0.75	2.60	17.74
Municipal used for Well Augmentation	13.14	0.50	1.50	0.75	2.60	18.49
Storage Charges						
Winter Water Storage*	2.80	0.25	--	0.75	--	3.80
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If-and-When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	12.00	0.50	--	0.75	--	13.25
Municipal	12.00	0.50	--	0.75	--	13.25

* $2.80 transferred to Reclamation

The water sales rate for both customer classes increases from $7.00 to $13.14/ac-ft, and the Return Flow rate for both customer classes increases to $6.00 to $12.00/ac-ft. The Resolution and Order regarding the 2020 water and storage rates (above) was passed and adopted in a regular meeting of the Board on December 5, 2019. The adopted resolution is provided in Appendix I.

6.2 Forward Guidance for Water Rates

The proposed rates and rate structure allow the District to provide forward guidance to its customers, as simulated in in the Jacobs financial model, which estimates revenues from projected rates through 2029. Only the first year of the proposed rate schedule should be considered “approved” pricing (as adopted by the Board during the annual rate-setting process). The second and third year of the rate schedule should be considered "advisory" and will become firm following Board approval during the annual rate-setting process. Remaining years in the rate schedule should be considered "forecasted" for customer planning purposes only, but subject to change in subsequent primary rate-setting or cost-of-service study years.

7. Conclusions and Recommendations

7.1 Summary and Conclusions

SECWCD has historically maintained a strong financial position to face current financial requirements and potential future needs; however, recent amendments to its contract with the U.S. Bureau of Reclamation, the need to repair aging infrastructure, more stringent federal and state water quality and environmental regulations, and new capital investments have increased SECWCD's cost to provide services to its customers.

A detailed COS analysis was performed as part of this Study to determine the actual costs of serving individual customer classes. Two cost allocation methods were used—uniform cost allocation and split cost allocation—to ensure that the proposed rates are generally reflective of SECWCD's costs of service. In addition, an ability-to-pay analysis was performed for the Irrigation customer class using standard U.S. Bureau of Reclamation Irrigation Payment Capacity guidelines.

7.2 Recommendations

7.2.1 Recommendations in this Rate Study

Included in this rate study are inherent recommendations that the District:

- Separately retain an independent registered financial advisor to provide advice on issuance of debt securities and financial products, if necessary.
- Establish revenue requirements by calculating an average annual deficit over the Forecast Period using a cash-flow analysis. The resulting average deficit in this study was $1.72 million annually over the Forecast Period.
- Utilize a split cost allocation basis for the determination of fair and equitable water rates by customer class.
- Utilize a future test year (e.g., in this study 2020 was used).
- Keep existing surcharges in place until further analysis can be performed.
- Evaluate cost of service for two customer classes—M&I and Irrigation.
- Introduce a first-time water rate for Carry-over Project water to reflect the opportunity cost of carryover storage. A Carry-over Project water rate also provides a cost-based pricing signal to storage customers, which improves allocative efficiency.
- Review and consider the draft policies included in Appendix B for eventual adoption. Most importantly, the District should establish a formal cash reserves policy, and a prioritization basis for reserve funding.
- Approve Option 1 (aggressive) rate increase to begin eliminating deficits and to meet the revenue requirement.

7.2.2 Recommendations for Future Consideration

In the future, it is recommended that the District:

- Perform a follow-up COS rate study in approximately 3 years. This study should address the relevance and potential phase-out of the surcharges.
- Revisit the Hydroelectric Enterprise financials following startup and steady-state operations.
- Begin discussions on approaches for funding or financing the significant capital investment needs in the 20-year timeframe.
- Quantify and conduct sensitivity analysis of significant financial risks facing the District.

- Establish the Reserve Categories listed below and define specific targets for each
  - Cash Reserve
  - Operating Reserve
  - Contingency/Exposure Reserve
  - Capital Reserve

Appendix A
Workshop Summaries and Stakeholder Questions and Answers

Financial Strategy and Sustainability Study

HISTORY

The Southeastern Colorado Water Conservancy District (District) was formed in 1958 to improve the water resources of the Arkansas River, and specifically to develop the Fryingpan-Arkansas Project (Project). When the Project was authorized by Congress in 1962, the District already had begun the task of funding the legal, engineering and clerical support the Project required. Much of the District's activity in the past 60 years has been focused on paying off the debt for construction of the Project, as well as paying for its share of the operation and maintenance of the Project.

NEW STUDY

In 2019, the District has launched a Financial Strategy and Sustainability Study to develop financial planning tools to cope with an aging Project, as well as dynamic changes that are expected to occur in the coming years.

PURPOSE

The District will receive financial planning tools that will allow its Board to make solid planning decisions in the future. This will help meet the Project's infrastructure needs, as well as give the District the means to address future challenges.

IMPACTS

The District will not change its ad valorem tax rate as a result of this study. The property tax is tied to the federal contract for the repayment and operation of the Project.

Other than taxes, the District primarily relies on water sales and storage revenues. The Project water sales rate has not been raised since 1998, and the District has pulled from its reserves or impose fees to meet shortfalls in revenue that should be covered by sales. The price of Project water is just a fraction of comparable water that can be purchased for supplemental use in this area. Project water storage fees are assessed as surcharges.

STUDY COMPONENTS

The District will have new financial tools to work with as a result of the JACOBS study. These will be approached in the most efficient way that has the least impact on customers.

Financial Plan: Guidelines for future budgets, anticipated revenues, expenditures and reserves.

Analysis of Policies: Determination of Board actions needed to implement the financial plan.

Capital Improvement and Capital Project Plan: Development of a schedule for District and Project needs up to 20 years in the future.

Revenue Requirement Analysis: Evaluation of revenue needs for the Project, District and Enterprise.

Cost of Service Analysis: Alignment of revenue sources with capital and operational expenses.

Rate Design Analysis: Matching rates with revenue needs.

2019 Finance Strategy and Sustainability Study
Schedule of Meetings

Lower Arkansas Valley Outreach Meeting
Subject: Study Introduction and Schedule
March 12, 2019 at 11:00 a.m.
Otero Juror College – Rizzuto Banquet Room
1802 Colorado Ave
La Junta, CO 81050

Upper District Area Outreach Meeting
Subject: Study Introduction and Schedule
March 14, 2019 at 1:30 p.m.
Upper Arkansas Water Conservancy District Office
339 E. Rainbow Blvd
Salida, CO 81201

Northern District Area Outreach Meeting
Subject: Study Introduction and Schedule
March 15, 2019 at 10:00 a.m.
Fountain City Hall
116 S. Main Street
Fountain, CO 80817

Central District Area Outreach Meeting
Subject: Study Introduction and Schedule
March 21, 2019 at 9:30 a.m.
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Executive Committee Workshop 1
Subject: Preparing Long-Term Financial Plan
April 23, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Executive Committee
May 23, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Executive Committee Workshop 2 & 3
Subject: Establishing Appropriate Reserves
Subject: Allocation Cost of Service
June 27, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Executive Committee Workshop 4
Subject: Water Assessment Rates and Surcharges
July 25, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

SE District Board Meeting
Subject: Assessment Rates, Surcharges, and Fees Hearing
August 15, 2019 at 9:30 a.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

SE District Board Meeting
Subject: Assessment Rates, Surcharges, and Fees Adoption
September 19, 2019 at 9:30 a.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Additional meetings maybe added to this schedule in the future.

Southeastern Colorado Water Conservancy District

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

Financial Strategy and Sustainability Study
Executive Committee Meeting
April 23, 2019

Workshop 1: Preparing Long-Term Financial Planning Summary

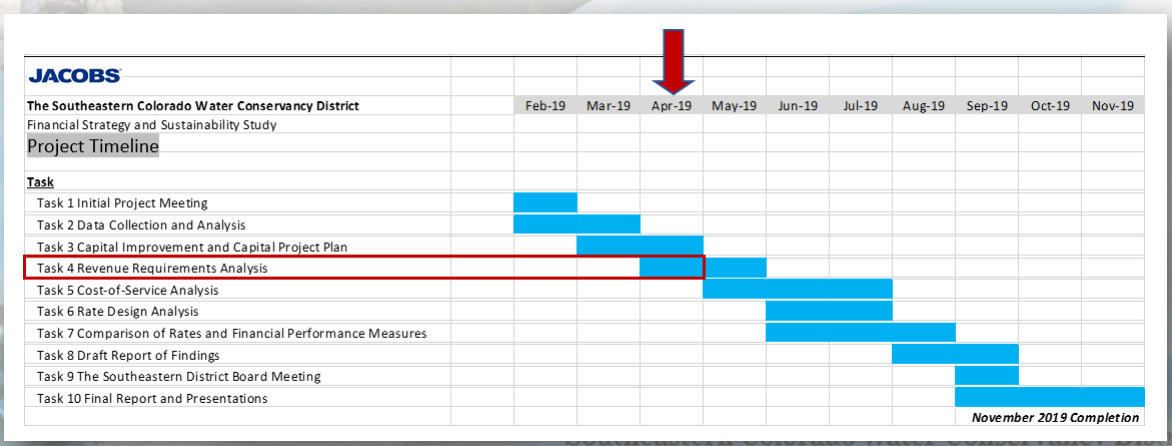
The District is in a new era, with a mission focused on maintaining its investment in the Fryingpan-Arkansas Project. The District will work as a financial partner with the Bureau of Reclamation. The District is obligated by its Contract with Reclamation, but also has a duty to protect and enhance the Project for its stakeholders.

Costs for District operations, capital needs and Enterprise Activities are increasing, but water rates have remained unchanged for more than 20 years. Water rates, along with payments from the Enterprise to the District, are the primary source of additional revenue, because District bonding options are limited.

Amendment 11 to the Fry-Ark Contract sets up a specific payback rate to Reclamation for the Project, and allows the District to establish a strategic reserve for Project needs. The reserve cannot be transferred to other funds.

"Base case" projections show District fund balances for the next 10 years. Alternate scenarios will look at additional capital investments, or unexpected Project replacement costs.

Finance Study Schedule



The Team

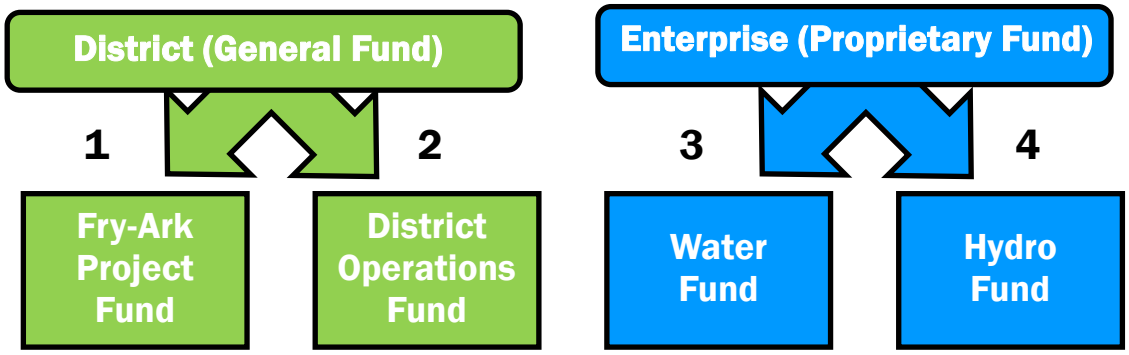
Southeastern Staff
Jim Broderick
Executive Director
Leann Noga
Finance Manager
Chris Woodka
Issues and Project Manager
Garrett Markus
Water Resource Engineer

Study Advisors
Seth Clayton
Pueblo Water
Curtis Mitchell
City of Fountain
Terry Scanga
Upper Arkansas Water Conservancy District
Kent Ricken
Colorado Water Protective and Development Association

JACOBS, Engineering Consultant
Dennis Jackson, Project Manager
Allan Highstreet
QA/QC Advisor
Keith Bishton and Darren Betts
Rates Analysis
Fatuma Yusuf and Kevin Kasberg
Irrigation Payment Capacity
Stephanie Harrison and Jamie Behrens
CIP Development

Contact Information
Online Information
(719) 948-2400 or
info@secwcd.com

Finance Study: Breakdown of 4 Fund Elements

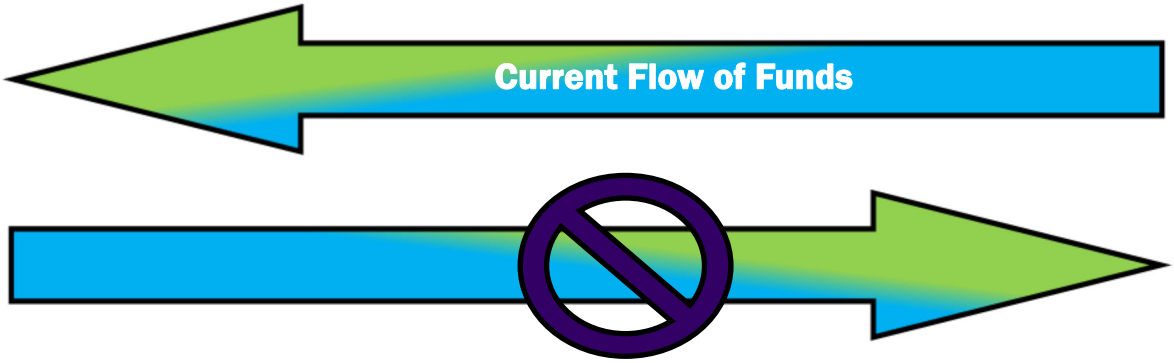


Definition
Supports the Fry-Ark Project with the use of ad valorem tax revenues. Items such as the operation, maintenance, replacement, extraordinary replacement (RAX), debt, and betterment of the Fry-Ark Project.

Definition
Supports the headquarter operations of the District with the use of operating tax, Specific ownership tax, inter-fund reimbursements and interest earned. Items include human resource, projects, programs, consulting work, recurring capital expenses and non-recurring capital expense.

Definition
Supports the operations of the business Enterprise with the use of water revenues and interest earned. Items include hours worked on projects and programs, consulting work, debt, recurring capital expenses, and non-recurring capital expense, as well as the hydro facility when necessary.

Definition
Supports the design, construction, and operations of the hydro facility with a combination of power generation revenue and repayment of the CWCB loan. The Water Fund also supports hydro when necessary. Items include hours worked, consulting work, debt, recurring capital expenses, and non-recurring capital expense.



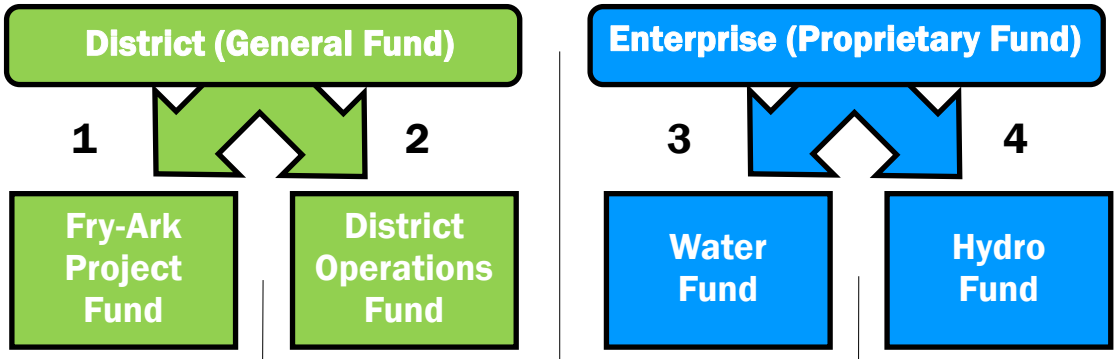
Current Flow of Funds

The District (General Fund) is the government entity in which receives ad valorem tax revenues from the nine Southeastern District counties. The District doesn't currently support the Enterprise. The Enterprise (Proprietary Fund) is the business operations and generates the majority of revenues from the sales and storage of Water. The Enterprises has the ability to use funds to support the District.

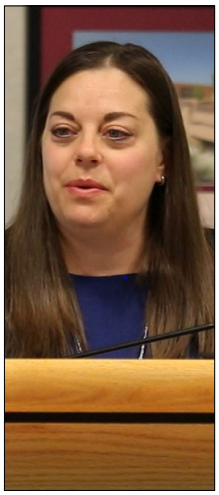
"There is a changing landscape, where you are shifting from investment in the Project to maintenance."

Dennis Jackson

Finance Base Case Revenue Requirements: 10-Year Forecast



10-Year Base Case	10-Year Base Case	10-Year Base Case	10-Year Base Case
Revenue: $13.5 million O&M Expense: $7.5 million (5 yrs) $2.5 million (next 5 yrs) Debt Service: $1.5 million Annual Deficit: None	Revenue: $2.5 million O&M Expense: $3.2 million Debt Service: None Annual Deficit: ($700,000)	Revenue: $1.9 million O&M Expense: $2.5 million Debt Service: None Annual Deficit: ($1 million)	Revenue: $1.3 million O&M Expense: $500,000 Debt Service: $900,000 Annual Deficit: Break-even
Beginning Balance: $4.3 million 10 Year Surplus: $27 million Ending Balance 2028: $31.3 million	Beginning Balance: $5.9 million 10 Year Deficit: ($5.7 million) Ending Balance 2028: $200,000	Beginning Balance: $8.6 million 10 Year Deficit: ($9.9 million) Ending Balance 2028: ($1.3 million)	Beginning Balance: ($2.8 million) 10 Year Surplus: $400,000 Ending Balance 2028: ($2.4 million)



"We will manage the Project in a partnership with the Bureau as we are moving forward."

Leann Noga

Summary of Workshop Takeaways

- The base case for the Fry-Ark Fund annual forecast is a break-even or use of Fry-Ark reserves in some years,
- The base case for the District Operations Fund annual forecast is a deficit of ($700,000)
- The base case for the Water Fund annual forecast is a deficit of ($1 million)
- The base case for the Hydro Fund is forecasted to break even, but has a starting negative fund balance due to construction of the facility
- In order for the District and Enterprise to maintain the base case, a doubling of rate revenues in the District Operations Fund and Water Fund are needed over the 10-year forecast period.
- The Team will follow up on additional questions raised at the first workshop.

Next Executive Committee Workshop

Executive Committee Workshop 2

Subject: Establishing Appropriate Reserves

May 23, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Future Workshops and Meetings

Executive Committee Workshop 3
Subject: Allocation Cost of Service
June 27, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

SE District Board Meeting
Subject: Assessment Rates, Surcharges, and Fees Hearing
August 15, 2019 at 9:30 a.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Executive Committee Workshop 4
Subject: Water Assessment Rates and Surcharges
July 25, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

SE District Board Meeting
Subject: Assessment Rates, Surcharges, and Fees Adoption
September 19, 2019 at 9:30 a.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Southeastern Colorado Water Conservancy District

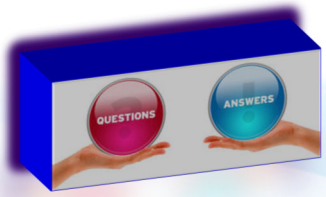
SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

Financial Strategy and Sustainability Study
Executive Committee Meeting
Workshops 2 & 3 — June 27, 2019

Q&A Follow-up

June 27 a confidential legal memo was made available to the Board of Directors via the secure login website, addressing the following questions from prior meetings.

⇒ TABOR restrictions
⇒ Bond & debt authority



Stair Step to a Completed Study

The SE District is about halfway to the finish line of the study. At this point we have completed the following major tasks:

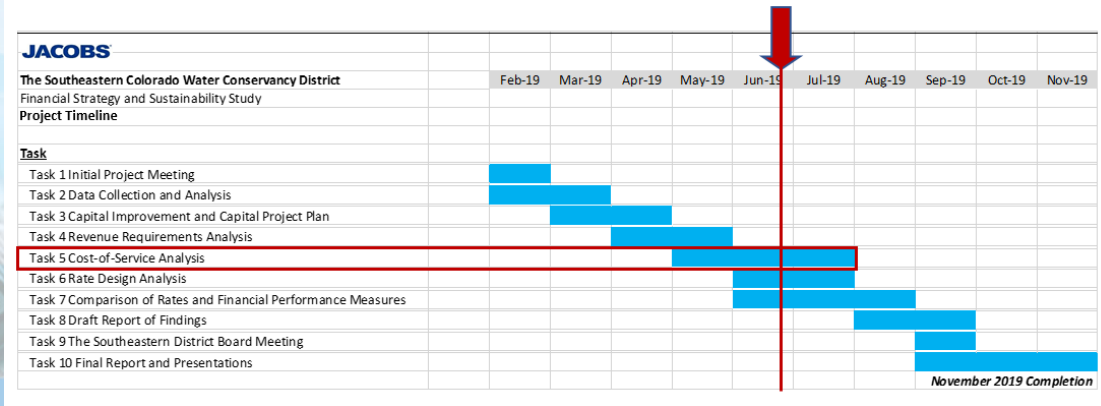
⇒ Capital Improvement & Capital Projects Plan
⇒ Revenue Requirement Analysis
⇒ Reserve Recommendations Analysis
⇒ Cost of Service Allocation and Analysis

But there is still more to be done...

Next steps and future tasks:

⇒ Rate design analysis
⇒ Water Assessment rates and Surcharge design (Workshop 4)
⇒ Comparison of rates and financial performance measures
⇒ Draft Report
⇒ Assessment Rates, Surcharges and fees Hearing
⇒ Assessment Rates, Surcharges and fees Adoption
⇒ Final Report

Finance Study Schedule



The Team

Southeastern Staff
Jim Broderick
Executive Director
Leann Noga
Finance Manager
Chris Woodka
Policy and Issues Manager
Garrett Markus
Water Resource Engineer

Study Advisors
Seth Clayton
Pueblo Water
Curtis Mitchell
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Colorado Water Protective and Development Association

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Dennis Jackson, Project Manager
Allan Highstreet
QA/QC Advisor
Keith Bishton and Darren Betts
Rates Analysis
Fatuma Yusuf and Kevin Kasberg
Irrigation Payment Capacity
Stephanie Harrison and Jamie Behrens
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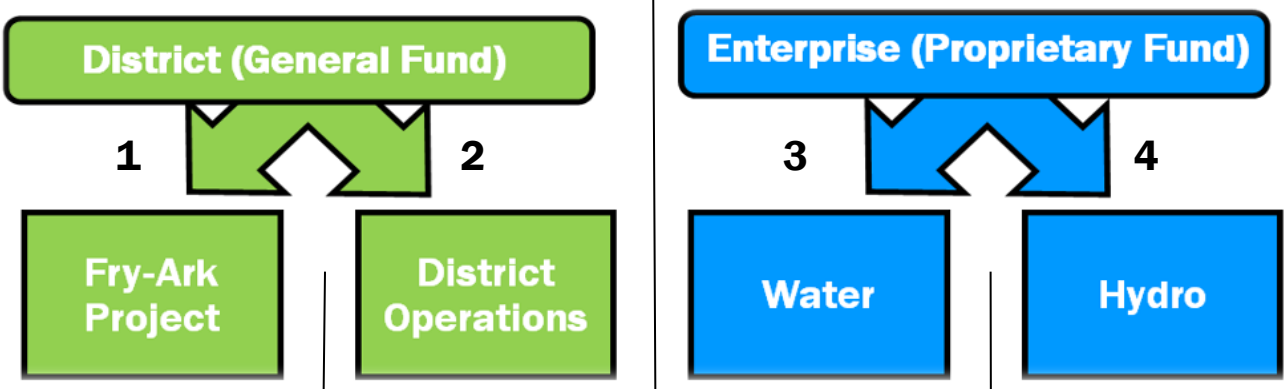
Workshop 2: Establishing Appropriate Reserves

Jacobs surveyed reserve strategies of eight other water providers in the western United States. The Northern Colorado Water Conservancy District was most similar to the Southeastern District. Based on the data gathered, the recommended strategic reserve categories, targets, and ranges are listed below.



Fry-Ark Project	District Operations	Water	Hydro
Recommended Target	Recommended Target	Recommended Target	Recommended Target
Operating Reserve: $2.4 million	Operating Reserve: $3.6 million	Operating Reserve: $1.6 million	Operating Reserve: $0.4 million
Capital Reserve: $20 million	Capital Reserve: $0 million	Capital Reserve: $4 million	Capital Reserve: $0 million
Contingency or Exposure Reserve: $10 million	Contingency or Exposure Reserve: $0 million	Contingency or Exposure Reserve: $5 million	Contingency or Exposure Reserve: $0 million
Working Cash Reserve: $0 million	Working Cash Reserve: $5 million	Working Cash Reserve: $2 million	Working Cash Reserve: $0 million
Total Target Range Recommendation: $12 - $40		**Total Target Range Recommendation: $10 - $13**	

Summary of Workshop 2 Takeaways

The recommended categories are:

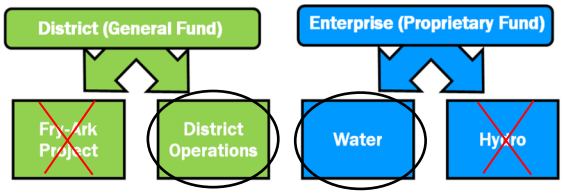
- **Working cash reserve, Operating reserve, Contingency or exposure reserve, Capital reserve**
- **The District is seeking better definition and direction regarding its reserve funds recommended levels or targets.**
- **Each reserve category should reflect the District's unique circumstances, legal structure, financing capability, and risks of operation**
- **In the future a formal policy or consensus will be needed to manage the financial performance of the District and Enterprise**

Workshop 3: Allocating Cost of Service

Jacobs performed a cost of service study including two customer classes; Municipal & Industrial (M&I) and Irrigation. Jacobs stressed the fact that the cost of service is not the same as creating a rate structure and that would be determined in a future workshop. The variation between the District and a traditional utility were discussed, particularly because customers can choose whether or not to purchase Project water and/or use Project facilities.

Fund Selection

The Fry-Ark and Hydro fund were not considered in the cost of service. The Fry-Ark Project is supported by ad valorem taxes and the Hydro is listed as a break-even fund.



Assumptions of Cost of Service

- **Analyzes Project Water Sales, Storage, and Return Flows.**
- **Surcharges were not studied.**
- **Future test year of 2020**
- **20 year average (1999-2018) of Project water allocation of 42,058 acre-feet (af)**
  - **22,960 af or 54.59% for M&I**
  - **19,098 af or 45.41% for irrigation.**

Cost of Service Results

Project Water

Cost of Service Matrix - 2020 Test Year		
Allocation Method	**Customer Class**	**$/AFU**
Uniform	M&I	$ 14.29
	Irrigation	$ 14.29
Split	M&I	$ 15.25
	Irrigation	$ 13.14

Municipal Carryover of Project Water

Description	Losses (AF or %)	Opportunity Cost ($/AF)
M&I Project Water Cost per Acre Foot ($14.89)		
Annual Evaporation Losses	10%	$ 1.49
10% Transit Loss (on evaporation)	10%	$ 0.16
Foregone Return Flow Sales*	40%	$ 9.93
Total Opportunity Cost of Carryover Water		**$ 11.58**

* Foregone return flow sales is 40% of the M&I Project Water cost per acre foot ($/AF).

Return Flows

M&I	**$18.65**
Irrigation	**$16.92**

Winter Water

Irrigation	**$5.72**

SE District Goals of Cost of Service

1. **Meet the revenue requirement**
2. **Apportion production costs among customers fairly and equitably**
3. **Achieve optimal efficiency**

Summary of Workshop 3 Takeaways:

- **The Cost of Service is not the water rates, water rate design or the implementation of the rate design.**
- **In the future, the Board of Directors will determine if surcharges should be factored in the total cost of service to create one cost of water.**

Next Executive Committee Workshop

Executive Committee Workshop 4

Subject: Water Assessment Rates and Surcharges

July 25, 2019 from 10:00 a.m.- 2:00 p.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Future Workshops and Meetings

SE District Board Meeting
Subject: Assessment Rates, Surcharges, and Fees Hearing
August 15, 2019 at 9:30 a.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

SE District Board Meeting
Subject: Assessment Rates, Surcharges, and Fees Adoption
September 19, 2019 at 9:30 a.m. (Lunch Provided)
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Southeastern Colorado Water Conservancy District

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

Financial Strategy and Sustainability Study
Executive Committee Meeting
Workshops 4 — July 25, 2019

Workshop 4: Water Rate Design and Analysis

Rate Design Scenarios

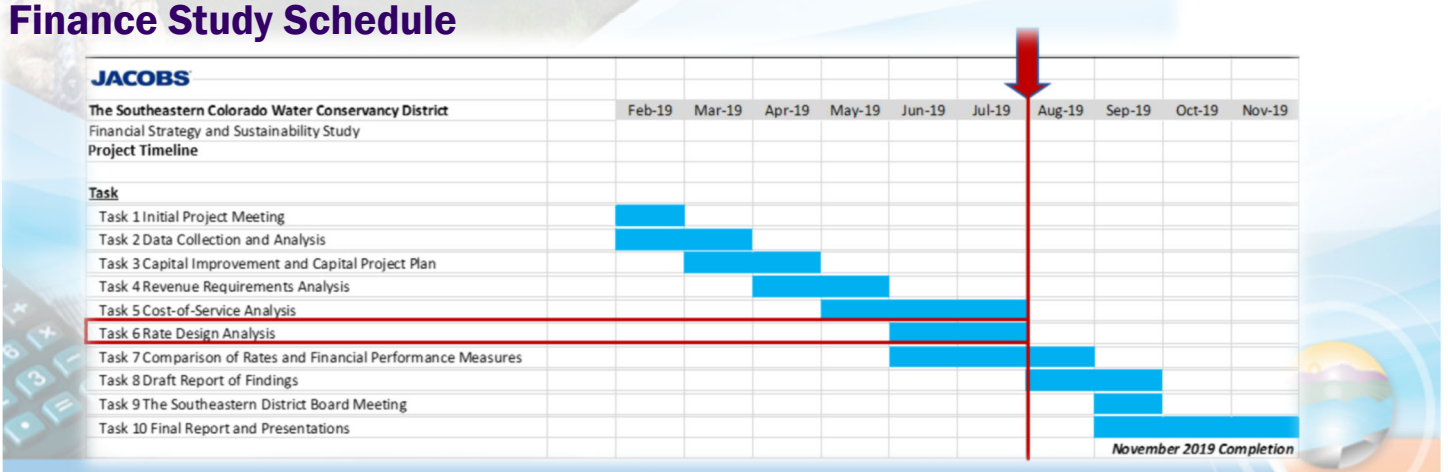
In Workshop 4, JACOBS presented the Executive Committee with three rate design scenarios:

1. **Aggressive Rate Phase-In Scenario (1 year phase-in)**
2. **Moderate Rate Phase-In Scenario (5 year phase-in)**
3. **Gradual Rate Phase-In Scenario (10 year phase-in)**

Assumptions for all Scenarios

- **All Surcharges remain unchanged**
- **Annual Project water sales = 44,000 acre-feet (20-year average)**
- **Annual irrigation return flows = 6,470 acre-feet (20-year average)**
- **Annual municipal return flows = 1,000 acre-feet (20-year average)**
- **Annual winter water storage = 42,000 acre-feet (20-year average)**
- **Annual carry-over storage = 123,944 acre-feet (10-year average)**
- **Carry-over rate phased in over 5 years, no carry-over rate in 2020, and 25% per year thereafter**
- **Transfers of $300,000 annually are made from the Water Fund to the District Operations Fund**
- **Annual rate increase of 5% per year for phase-in scenarios**
- **Split allocation and uniform rates were both studied—only split allocation rates are included in the scenarios**

Finance Study Schedule



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SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

Water Rate Design Scenarios

1. Aggressive Rate Phase-In Scenario (1 year phase-in)

SECWCD Financial Strategy and Sustainability Study - Proposed Water Rates (excluding surcharges)
Water Rate Scenario - Aggressive Split Rates (1-Year Phase-In: "One and Done")

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Rate Description	**Current**	**Aggressive Split Rate Increase ($/AF)**									
Project Water											
Irrigation	$ 7.00	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14
Municipal	$ 7.00	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	$ 7.00	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14	$ 13.14
Municipal used for Well Augmentation	$ 7.00	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25	$ 15.25
Storage Charges											
Winter Water Storage*	$ 2.80	$ 5.72	$ 5.72	$ 5.72	$ 5.72	$ 5.72	$ 5.72	$ 5.72	$ 5.72	$ 5.72	$ 5.72
Carry-Over Project Water	$ -	$ -	$ 2.97	$ 5.93	$ 8.90	$ 11.86	$ 11.86	$ 11.86	$ 11.86	$ 11.86	$ 11.86
If-and-When Storage											
In District	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Out of District	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Aurora	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Project Water Return Flows											
Irrigation Return Flows	$ 6.00	$ 16.18	$ 16.18	$ 16.18	$ 16.18	$ 16.18	$ 16.18	$ 16.18	$ 16.18	$ 16.18	$ 16.18
Municipal Return Flows	$ 6.00	$ 18.78	$ 18.78	$ 18.78	$ 18.78	$ 18.78	$ 18.78	$ 18.78	$ 18.78	$ 18.78	$ 18.78

* $2.80 charged by the Bureau and transferred to the Bureau

2. Moderate Rate Phase-In Scenario (5 year phase-in)

SECWCD Financial Strategy and Sustainability Study - Proposed Water Rates (excluding surcharges)
Water Rate Scenario - Moderate Split Rates (5-Year Phase-In)

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Rate Description	**Current**	**Moderate Split Rate Increase ($/AF)**									
Project Water											
Irrigation	$ 7.00	$ 8.64	$ 10.37	$ 12.17	$ 14.08	$ 16.06	$ 16.06	$ 16.06	$ 16.06	$ 16.06	$ 16.06
Municipal	$ 7.00	$ 9.08	$ 11.27	$ 13.57	$ 15.98	$ 18.51	$ 18.51	$ 18.51	$ 18.51	$ 18.51	$ 18.51
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	$ 7.00	$ 8.64	$ 10.37	$ 12.17	$ 14.08	$ 16.06	$ 16.06	$ 16.06	$ 16.06	$ 16.06	$ 16.06
Municipal used for Well Augmentation	$ 7.00	$ 9.08	$ 11.27	$ 13.57	$ 15.98	$ 18.51	$ 18.51	$ 18.51	$ 18.51	$ 18.51	$ 18.51
Storage Charges											
Winter Water Storage*	$ 2.80	$ 3.41	$ 4.05	$ 4.72	$ 5.43	$ 6.19	$ 6.19	$ 6.19	$ 6.19	$ 6.19	$ 6.19
Carry-Over Project Water	$ -	$ -	$ 1.28	$ 3.92	$ 8.05	$ 13.77	$ 13.77	$ 13.77	$ 13.77	$ 13.77	$ 13.77
If-and-When Storage											
In District	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Out of District	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Aurora	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Project Water Return Flows											
Irrigation Return Flows	$ 6.00	$ 8.44	$ 11.01	$ 13.70	$ 16.53	$ 19.47	$ 19.47	$ 19.47	$ 19.47	$ 19.47	$ 19.47
Municipal Return Flows	$ 6.00	$ 8.99	$ 12.13	$ 15.42	$ 18.88	$ 22.49	$ 22.49	$ 22.49	$ 22.49	$ 22.49	$ 22.49

* $2.80 charged by the Bureau and transferred to the Bureau

3. Gradual Rate Phase-In Scenario (10 year phase-in)

SECWCD Financial Strategy and Sustainability Study - Proposed Water Rates (excluding surcharges)
Water Rate Scenario - Gradual Split Rates (10-Year Phase-In)

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Rate Description	**Current**	**Gradual Split Rate Increase ($/AF)**									
Project Water											
Irrigation	$ 7.00	$ 7.99	$ 9.03	$ 10.12	$ 11.27	$ 12.47	$ 13.74	$ 15.06	$ 16.46	$ 17.92	$ 19.50
Municipal	$ 7.00	$ 8.22	$ 9.50	$ 10.85	$ 12.26	$ 13.75	$ 15.31	$ 16.95	$ 18.66	$ 20.47	$ 22.31
Project Water Sales used for Well Augmentation											
Irrigation used for Well Augmentation	$ 7.00	$ 7.99	$ 9.03	$ 10.12	$ 11.27	$ 12.47	$ 13.74	$ 15.06	$ 16.46	$ 17.92	$ 19.50
Municipal used for Well Augmentation	$ 7.00	$ 8.22	$ 9.50	$ 10.85	$ 12.26	$ 13.75	$ 15.31	$ 16.95	$ 18.66	$ 20.47	$ 22.31
Storage Charges											
Winter Water Storage*	$ 2.80	$ 3.11	$ 3.43	$ 3.76	$ 4.11	$ 4.49	$ 4.87	$ 5.28	$ 5.71	$ 6.16	$ 6.65
Carry-Over Project Water	$ -	$ -	$ 0.64	$ 1.97	$ 4.03	$ 6.90	$ 8.49	$ 10.16	$ 11.93	$ 13.78	$ 15.67
If-and-When Storage											
In District	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Out of District	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Aurora	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Project Water Return Flows											
Irrigation Return Flows	$ 6.00	$ 7.37	$ 8.81	$ 10.32	$ 11.91	$ 13.58	$ 15.33	$ 17.16	$ 19.09	$ 21.12	$ 23.22
Municipal Return Flows	$ 6.00	$ 7.64	$ 9.37	$ 11.18	$ 13.09	$ 15.08	$ 17.18	$ 19.39	$ 21.70	$ 24.13	$ 26.66

* $2.80 charged by the Bureau and transferred to the Bureau

Water Rate Design Scenarios Details

Aggressive Rate Phase-In Scenario Summary (Water Fund)

⇒ 1– Year Rate Phase-in (to 2020)
Irrigation $13.14
Municipal $15.25

⇒ Rate and Fee Revenue Increase (over 2019)
33% in 2020
128% by 2024

⇒ Deficits are Eliminated in 2022

⇒ 10 Year Net Revenue: $4.1 million

⇒ Minimum Fund Balance: $4.7 million (2021)

⇒ Maximum Fund Balance: 10.5 million (2029)

Moderate Rate Phase-In Scenario Summary (Water Fund)

⇒ 5– Year Rate Phase-in (to 2024)
Irrigation $16.06
Municipal $18.51

⇒ Rate and Fee Revenue Increase (over 2019)
8% in 2020
154% by 2024

⇒ Deficits are Eliminated in 2023

⇒ 10 Year Net Revenue: $5.2 million

⇒ Minimum Fund Balance: $3.6 million (2022)

⇒ Maximum Fund Balance: 11.7 million (2029)

Gradual Rate Phase-In Scenario Summary (Water Fund)

⇒ 10– Year Rate Phase-in (to 2029)
Irrigation $19.50
Municipal $22.31

⇒ Rate and Fee Revenue Increase (over 2019)
4% in 2020
182% by 2029

⇒ Deficits are Eliminated in 2026

⇒ 10 Year Net Revenue: $1.6 million

⇒ Minimum Fund Balance: $2.4 million (2025)

⇒ Maximum Fund Balance: $8.0 million (2029)

Summary of Workshop 4 Takeaways:

- All three scenarios are reasonable and viable options
- The aggressive rate scenario has the lowest per acre-foot rate to customers over time.
- The moderate rate scenario is a mid-point regarding acre-foot rate to customers over time.
- The Gradual rate scenario has the highest acre-foot rate to customers over time.
- An additional rate study is planned in three years
- In the next rate study, the Board of Directors will determine if surcharges should be factored in the total cost of service to create one rate for water.

Next Steps…

President Bill Long stated that in upcoming board meetings the subject of the Finances will be the top priority of the Board of Directors.

The financial discussion will move from the Executive Committee to the Board of Directors, following a schedule that will allow rate adjustments to be made for 2020, according to the preferences of the Board.

Future Meetings: Customer Outreach

Central District Area Outreach Meeting
Subject: Study Introduction and Schedule
August 27, 2019 at 10:00 a.m.
Southeastern Colorado Water Conservancy District
31717 United Ave
Pueblo, CO 81001

Northern District Area Outreach Meeting
Subject: Study Introduction and Schedule
August 30, 2019 at 10:00 a.m.
Fountain City Hall
116 S. Main Street
Fountain, CO 80817

Lower Arkansas Valley Outreach Meeting
Subject: Study Introduction and Schedule
August 29, 2019 at 10:00 a.m.
Otero Juror College – Rizzuto Banquet Room
1802 Colorado Ave
La Junta, CO 81050

Upper District Area Outreach Meeting
Subject: Study Introduction and Schedule
September 12, 2019 at 1 p.m.
Upper Arkansas Water Conservancy District Office
339 E. Rainbow Blvd
Salida, CO 81201

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

Finance Strategy and Sustainability Study Questions and Answers

In January 2019, the Southeastern Colorado Water Conservancy District, by action of the Board of Directors hired a third-party consultant, Jacobs, to complete a Finance Strategy and Sustainability Study (financial study). The financial study included the following scope of items: long term financial plan, capital improvements and project plan, revenue requirement analysis, reserve recommendations analysis, policy recommendations, cost of service analysis and model, and rate design analysis and model.

Throughout the analysis and calculation process of the study, Jacobs held four workshops within the Executive Committee of the Board of Directors. All were open to the public. A detailed summary of each Workshop is available at the Districts website. The full financial study is to be presented to the Board of Directors in a formal report from Jacobs.

The following questions are in regard to the financial study. These questions were submitted via the District website or by email. These questions were gathered between February and August of 2019 throughout the Workshop process of the study.

Questions were reviewed, and consolidated to avoid duplication and clarify content.

Workshop 1: Long-Term Finance Plan

1. **Is it better to include a requirement for some reserves in the revenue requirements analysis as compared to simply showing the amount of excess revenues at the end of the 10-year period?**
   This can be done both ways as listed in the question. In the financial plan (base case), the study of the revenue requirement calculation did not include a reserve requirement.

2. **Why was a future test year selected?**
   A future test year of 2020 was selected because the District and Enterprise do not currently include historical spending within the budget process. In the past we based annual spending off that year's expected water sales and storage fees. The water sales revenues are usually firm in the third quarter. In fact, in 2017 and 2018 we were unable to make the full allocation and processed customer refunds. In some cases, reserve spending was needed, but overall many programs and projects were delayed or postponed.

3. **What projects and/or programs were delayed or postponed that are included in the 2020 test year?**

There have been many items that have been delayed over the years such as building improvements, technology improvements, additional SnoTel sites, an enhanced conservation program, etc.

In the 2020 test year recurring capital includes building improvements such as mud jacking a portion of the District headquarters, replacement of the Board of Directors chairs, replacement of window coverings, garage door replacement, and upgrading the conservation garden. Technology includes electronic records management system, exchange server replacement, and copy machine replacement. Project and program related items include water rights protection, Fry-Ark condition assessment study, and additional SnoTel sites in the Fry-Ark collection system.

4. **What is the total Revenue Requirement?**

The total revenue requirement was presented as average over the 10-year forecasted period of the financial plan. The average revenue requirement is $600,000 for the District fund and $1,000,000 for the Enterprise.

The $600,000 deficit in the District is made up of operations as well as recurring capital items, such as building improvement, vehicle replacement, and legal water right protection, etc.

The $1,000,000 deficit in the Enterprise is made up of $500,000 in operations and recurring capital items, and the additional $500,000 is for one Capital Improvement item, which is the Restoration of Yield Project (ROY). The ROY program is a storage project east of Pueblo to assist with future exchanges on the river.

5. **What are the capital projects and the years they will be funded?**

In the 10-year finance plan, with the assistance of Jacobs, a 20-year capital improvement plan was designed. The first 10 years of that plan were added to the finance plan (base case). The capital plan will be published in the draft and final report of the study.

- *Fry-Ark Fund: It is assumed (at this point) that the Project Mill Levy will cover large improvement needs over the 10-year period*
- *District Operations Fund: Recurring capital items, such as building improvement, vehicle replacement, and legal water rights protection, etc. are included, but there is no capital project listed at this time.*
- *Water Fund: Recurring capital items, such as reimbursement on District capital expense, Fountain Creek Transit Loss, Upper Basin Storage and one capital project which is the Restoration of Yield (ROY) Project. This includes phase one starting in 2020, phase two starting in 2025, and phase three starting in 2029.*
- *Hydroelectric Fund: This project is new, so it is assumed that no capital project or improvement is needed over the 10-year period.*

6. **What are the future capital improvement concerns?**
Examples of future capital needs include:
    - *Recovery of Storage: The Fry-Ark Project has lost 20,000 acre-feet of storage in Pueblo Reservoir over 45 years.*
    - *Expansion of Storage: The District previously has identified the need for more storage in the Arkansas River basin.*
    - *Colorado River Call: The Fry-Ark Project water right is the most junior in Colorado on the Colorado River, and would be the first called out under state water administration if a call were placed by lower basin states.*
    - *Pueblo Dam Interconnect: The interconnection at Pueblo Dam has been studied and would provide operational efficiency and security for water users.*
    - *Safety of Dams: Future S.O.D. expenses that could arise.*
    - *Restoration of Yield: Further storage projects required to assure Project yield while meeting regulatory or environmental requirements.*
    - *Catastrophic risks: Unforeseen failure of major structures.*
    - *Exposure: Liability beyond limits covered by insurance, including the need for immediate administrative needs, legal action or engineering support.*

7. **Can we accelerate some of the items from the 20-year capital plan into the 10-year capital plan?**
Yes, the Capital Improvement Plan will be reviewed annually by the Board of Directors. The Board has the ability to move forward or add projects or programs in the 20-year plan by using reserve funds.

8. **Does the District currently have funding to spend on the planning of capital improvements?**
Yes, the District has as estimated $5.9 million in unassigned funds. This estimation does not include the year-end 2019.

Unrestricted Reserves – General Fund

12/31/2018 Fund Balance	$ 15,577,000
Prepaid, Assigned Items	(1,687,109)
TABOR	(150,000)
Fry-Ark Obligation	(1,500,000)
Enlargement	(2,000,000)
Starting Study Fund Balance (unassigned)	**$ 10,200,000**

Fry Ark Project Fund: $4,300,000
District Operations: $5,900,000

9. **Does the Enterprise currently have funding to spend on the planning of capital improvements?**
Yes, the Enterprise has as estimated $3.8 million in unassigned funds. This estimation does not include the year-end 2019.

Unrestricted Reserves – Enterprise Fund

12/31/2018 Fund Balance	$ 11,550,000
Project Water Rate Stabilization	(812,000)
Restricted for Hydro Contract - LOPP Contract	(100,000)
Rocky ford settlement Upper & Lower Current	(2,000,000)
Rocky ford settlement Upper & Lower Future	(2,000,000)
Hydropower balance due	(2,780,000)
Starting Study Fund Balance (unassigned)	**$ 3,858,000**

Water Activity: $ 6,638,000
Hydro Project: $(2,780,000)

Workshop 2: Establishing Appropriate Reserves

1. **When should the District have a capital project reserve compared to an operations, maintenance and replacement reserve?**
   A Capital Projects reserve is designed to support large planned or unplanned projects. An example of this is the Restoration of Yield project listed in the Water Fund capital improvement plan.

   An Operating reserve is designed to support unforeseen annual operational needs. An example may include a less than average water year or storage year, this reserve could bridge that gap of lost or short revenues.

2. **What are the infrastructure and operational differences between the agencies being compared in the Financial study regarding reserve targets?**
   The agencies selected *are west-wide water providers, of which many hold USBR contracts or are cutting-edge organizations. The District is very unique, so comparing agencies can be difficult, but this comparison provides the Board of Directors with an idea of other agencies' standards. The main takeaway is the Board of Directors will have to determine their level risk tolerance when setting reserve targets.*

3. **Why has a one-year operating reserve been selected for the Financial study**?
   The majority of the revenues collected in the District and Enterprise are at a specific point in the year. The Enterprise collects the majority of revenue late in the year, after water allocation. The District collects operating tax revenues mainly during March – June. Specific Ownership tax is unpredictable in time and amount. Due to this process the full year was analyzed. The number used to calculate the operating reserve was the one-year average of operating expense for 2016-18.

   This is a recommendation from Jacobs to eliminate revenue risk based on their professional opinion and other organizations that they surveyed, of which many held a 365 day reserve.

4. **Why is a capital reserve a percentage of assets under management?**
   This refers to the Fry-Ark Project sub-fund, the District is not responsible for 100 percent of the OM&R of the Fry-Ark project. The District is responsible for a percentage of all Fry-Ark assets, and each Fry-Ark asset is assessed at a different percentage. For example, the District pays 56 percent of OM&R including RAX on Pueblo Dam. So, we would not forecast more than the estimated cost that District would pay.

   Industry best practices and organizations included in survey used 2 percent of assets for this reserve. One of the supporting reasons for this is due to the limited ability that the District has to issue debt.

5. **Why have an administrative expense reserve? Are these items potentially covered by insurance?**
   The Exposure reserve would cover both administrative and environmental exposures. Administrative exposures could include legal, property damage and liability, losses and

judgment. Environmental exposures could include natural events, regulatory mandates, environmental events, water quality issues, flooding and/or drought. Some of the items listed could be covered by insurance policies.

The $5 million was an analyzed calculation and recommendation from Jacobs to cover annual fluctuations in revenue. This was a practice of organizations surveyed.

Note: The District only insures our owned assets, meaning the District headquarters, etc. The District cannot insure the Fry-Ark Project assets as they are owned by the USBR.

6. **How will reserve funds correct environmental exposures?**
   The Exposure reserve would cover both administrative and environmental exposures. Environmental exposure could include: acts of God, regulatory mandates, environmental events, and water quality. Examples may include: drought, flooding, emergency watershed health in the Fry-Ark collection system due to fire, etc. Most of these instances would require an up-front funding source.

7. **Why do we need $5 million to cover annual fluctuations in revenue?**
   The District (General Fund) Cash Reserve would support the seasonal variations in the operating cycle of cash flow. This reserve protects the fluctuations and timing of revenues that affect cash flow. This figure mainly protects the fluctuations for the Fry-Ark Contract cash flow. The District operations makes up a small portion of this total.

8. **Where does the revenue come from to generate the $63 million in total targeted reserves?**
   This would be determined by the Board of Directors through a future policy. The $63 million recommended target reserves include the total of all funds, and are the highest point of the recommended range. It is dependent on the source of revenues for each sub fund. The Fry-Ark Project sub fund has a reserve mechanism currently in place as a result of Amendment 11 of the Fry-Ark Project Contract. The Fry-Ark Project sub-fund makes up $35 million of the above stated $63 million.

   Reserves generation for the District operations sub fund, Water sub fund, and Hydroelectric sub fund will be determined by the Board of Directors though policy.

9. **Is it a standard approach to establish reserves prior to determining capital funding needs?**
   In Workshop 1, a 20-year capital improvement plan (CIP) was developed, in which the first 10 years of that plan were included in the 10-year financial plan (base case). The CIP has the potential to change based on project and program needs, and is planned to be reviewed on an annual basis.

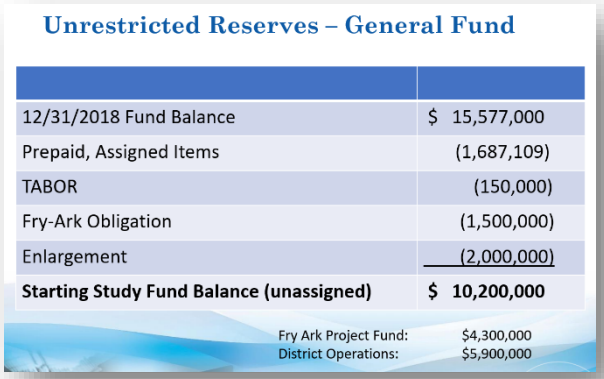
   It is standard to determine capital needs before setting reserves, then assigning specific totals to specific needs.

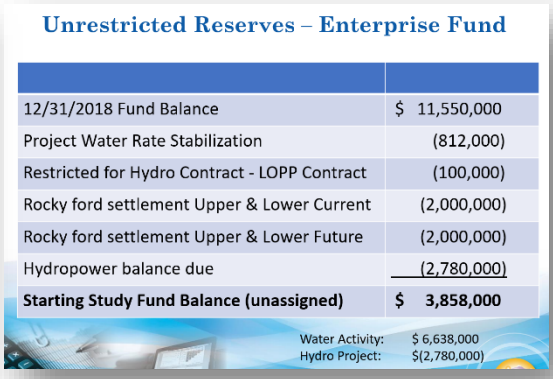
10. **Is it a standard to begin policies and procedures and then go to categories and targets as compared to the other way around?**
We have found example of other organizations establishing reserves before and after policies. The District has never done a financial plan including a cost of service and rate analysis, and it was felt it was necessary to educate the Board on each element of the process. Upon completion of the workshops, it was determined that suggested policies would be reviewed in September 2019.

11. **What is the factual underpinning for the currently identified reserve amounts?**
The agencies selected *are west-wide water providers, of which many hold USBR contracts or are cutting-edge organizations. The District is very unique, so comparing agencies can be difficult, but this comparison provides the Board of Directors with an idea of other agencies' standards. The main takeaway is the Board of Directors will have to determine their level risk tolerance we setting reserve targets.*

Many large water providers surveyed hold the 4 categories of reserves; Cash, operating, capital, and contingency/exposer reserves. The proposed target numbers are simply a starting point, and would have to be evaluated in the future.

12. **Can you explain the current fund balance in the study presentation from Workshop 2? It was observed that the unrestricted reserves listed in the presentation differ in the from that of the published audit.**





The above images were presented in Workshop 2 regarding fund balances:
The starting balances on both images are correct (amounts are rounded) and match the 2018 annual audit totals. It was found as a result of the Financial study that the Enterprise fund has contractual obligation that will need to be disclosed in the 2019 audit. This will be updated in the 2019 audit and finance statement process.

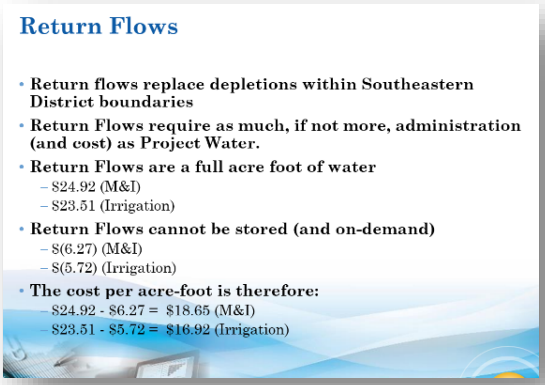
13. **What is the difference between the fund balance and reserves?**
The fund balance is the net position of a governmental fund: this is the difference between assets, liabilities, and deferred outflows and inflows of resources. This can be found on the Statement of Net Position. Reserves are a portion of the fund balance that is "reserved" or "set aside" for a specific category or a specific purpose.

Workshop 3: Allocating Cost of Service

1. **Why do the surcharges remain in place? Can they be added to the overall cost of water using the cost of service method?**
   The Financial Study assumes that surcharges remain the same as in the past. The surcharges were not analyzed in the current Financial Study because the surcharges were set in place for a specific past cost and timeframe. Jacobs recommended that the surcharges be studied in detail in the next cost of service study in three years. Changing or removing surcharges will be a future decision by the Board of Directors.

2. **What is the rationale for split rate recommendation from Jacobs?**
   One of the goals of the Financial Study was to allocate costs among customer classes equitably and fairly. Costs were assigned to customer classes based on the benefit of expenditures. As in the past, the two classes of customers are municipal & industrial, and irrigation, and remain the same.

3. **How were costs allocated in the cost of service for return flow water?**
   The return flow rates calculations were provided on the following image in Workshop 3:



Note: The Return Flow cost of service calculated totals were updated in Workshop 4 as seen in the below table.

	Workshop 3 $/AF	Workshop 4 $/AF	Variance $/AF
M&I	18.65	$ 18.78	$ 0.13
Irrigation	16.92	$ 16.18	$ (0.74)

The calculation assumes the same cost allocation as the Project Water for one full acre-foot of water and adjusted for the on-demand requirement, as follows:

Project Water rate: $15.25 (M&I) $13.14 (Irrigation)
Formula: Project Water Consumptive Use is 60%; leaving 40% Return Flows.
Return Flow Water rate (full acre-foot): $25.41 (M&I) $21.90 (Irrigation).
Formula: Return Flow Water rate (full acre-foot), minus value of water storage ($6.63 M&I, $5.72 irrigation)
Return Flow Water rate (adjusted): $18.78 (M&I) $16.18 (Irrigation).

4. **What is the score of the allocation factors between the two rate classes, M&I and irrigation?**

The cost of service was calculated in two methods: a uniform rate and a split rate. The uniform rate was divided evenly between the two rate customers. The split rate was allocated based on the expenses applying to M&I only, irrigation only, or both (meaning M&I and irrigation). The percentage of the allocation is as listed below:

Uniform rate: 50 percent M&I
50 percent Irrigation

Split rate: 31 percent M&I
1 percent Irrigation
68 percent both (applying to M&I and irrigation)

M&I expenditures: Excess Capacity, Fountain Valley Authority, Regional Resource Planning Group, Fountain Creek Transit Loss, water policy management consultants, and lobbyists.
Irrigation expenditures: Reclamation Reform Act, and Winter Water.

5. **What makes up the increase in the District and Enterprise personnel and overhead in the test year 2020?**

The 2020 test year is consistent with the published 2019 Business Plan. In 2018, staff completed the Business Plan which included the Adopted Budget for 2019 and proposed budgets for 2020 and 2021. The increase occurred in the business plan in anticipation of the 2018 salary and benefits survey. The total increase from the adopted 2019 Budget and the 2020 test year is about $56,000 or 4 percent increase.

6. **What is the history of charges for water storage? What is the reasoning behind the M&I carryover storage rate?**

When the Enterprise was established in 1996, it was determined that fees and assessments could be charged on stored Project water. Current practice is M&I carryover storage water has been changed surcharges since 1998. Irrigation has been changed for Winter Water storage since 1965 and can only carry over 20 percent for the next irrigation season.

In Workshop 3 Jacobs presented a cost of service for M&I carryover storage water. This calculation is an opportunity cost for the Enterprise which includes, the cost of Project Water, evaporation loss of 10 percent, transit loss of 10 percent of the evaporation loss, and a forgone return flow calculation. The forgone return flow calculation is supported by the loss of the ability to sell return flows on M&I stored water. The opportunity cost of carryover storage water is listed below:
Note that the M&I Carryover storage cost of service calculated totals were updated in Workshop 4, as seen in the below table.

	Workshop 3 $/AF	Workshop 4 $/AF	Variance $/AF
Total Opportunity Cost of Carryover Water	$ 11.58	$ 11.86	$ 0.28

7. **Why does Winter Water pay a fee for storage?**
In the Fry-Ark contract between the District and USBR, Winter water participants are required to pay $2.80 per acre-foot. The District collects this fee and forwards it to the UBSR, as required by the contract.

The Financial Study recommends that the cost of service storage rate for Winter water is $5.72. This would include the $2.80 per acre-foot to be forwarded to the USBR as required and $2.92 would remain in the Enterprise.

8. **Why is a reduction in reserves a credit in determining cost of service?**
Non-rate revenues, including changes in reserves, are credited in order to accurately reflect the cost of service for rate-making purposes. Per AWWA M1 Manual (page 54) "...in arriving at the net revenue requirements to be recovered by rates, the change in the fund balance should also be considered." Including the change in fund balance does not add to (or subtract from) reserves; rather, a neutral revenue requirement (to eliminate the forecasted deficit in the 2020 test year) is obtained by crediting the reduction in reserves.

9. **If Fry-Ark Project beneficiaries have paid for the Project, which includes storage, what is the justification for a carryover storage charge or an excess capacity charge for such beneficiaries?**

The Project Mill Levy paid and continues to pay for the construction of the Project, municipal interest on debt, and OM&R. The District has charged fees and assessments on different types of water and storage (all benefits of the Project) since 1971.

There are many benefits to the Project. There are fees associated with each benefit of the Project, such as Project water storage, Winter Water, the sale of Project water, Return Flows, and excess capacity storage.

10. **Is the carryover charge tied, in part, to the loss of capacity in which to store project water in subsequent years?**
No.

11. **How does "ability to pay" fit into a cost of service analysis?**
The ability to pay is not part of the cost of service methodology. Ability to pay applies only to irrigation and is an element that the USBR has performed historically. It was included in the scope of this Financial Study to provide a parallel analysis to the cost of service. The ability to pay study will be available in the draft report of the Finance Strategy and Sustainability Study. Draft numbers indicate that the cost of service rates proposed for irrigation are less than the irrigator's ability to pay.

12. **Are staff costs allocated between the District and the Enterprise such that there is no double counting?**
    The personal and overhead was doubled in the DRAFT financial plan and has since been corrected. This is reason for the change in cost of service from Workshop 3 to Workshop 4.

13. **When should there be a policy discussion of what to do with "if and when" storage rates?**
    The rate structure for excess capacity or "if and when" storage is set by the USBR via contract. No policy discussion is applicable.

Workshop 4: Water Rate Design and Analysis

1. **Is the intent to build a fund balance or to build reserves?**
   No, the intent is to cover the deficit and eventually to balance revenue and expenditures listed in the financial plan.

2. **When considering the impact of inflation on revenue needs, did you look at inflationary increases in the cost of applicable labor and materials as well as increases in the value of the underlying assets?**
   Inflation vs. Rate Increases:

   Inflation was included in the determination of revenue requirements in Workshop 1. Inflation was assumed to be 2 percent annually for the cost of labor and materials (for most expenditure line items).

   Rate increases for water and storage rates were assumed to be 5 percent for the Phase-In scenarios in Workshop 4. Rate increases of 5 percent for water and storage in the phase-in scenarios exceed the rate of inflation (2 percent) in order to recoup the under-recovered revenue in the early years of the rate phase-in, when rates are set below their cost of service. The District must therefore "catch-up" to achieve the same amount of total revenue required to sustain operations over the forecast period (10 years).

   As presented, year 2020 is the only year in which a rate will be approved by the Board. Years two and three (2021 and 2022) are advisory rate years, for customer communication and budgeting. Because the District will perform another cost of service in three years, the rate and cost recovery will not surpass the three-year period.

3. **What is the justification for using the annual 5 percent rate increase?**
   The 5 percent increase is an approximation of the annual increase required to generate comparable Net Revenues over the 10-year planning period.

   As presented, year 2020 is the only year in which a rate will be approved by the Board. Years two and three (2021 and 2022) are advisory rate years, for customer communication and budgeting. Because the District will perform another cost of service in three years, the rate and cost recovery will not surpass the three-year period.

4. **The rates recommendation from Jacobs suggests one of the three options: 1-year, 5-year or 10-year phase in of rates. Why is the cost of water and storage at year 5 and 10 a higher cost than that of year 1?**
   In order to generate similar net revenue over the 1-, 5- and 10-year phase-in periods, there needs to be a compensating rate increase applied to the phase-in scenarios. The District must therefore "catch up" to achieve the same amount of total revenue required to sustain operations over the forecast period (10 years).

   The only rate that remains that same in each scenario is the M&I carry over storage, which is phased in over a 5-year period; 0 percent year 1, 25 percent more each year from two through five.

As presented, year 2020 is the only year in which a rate will be approved by the Board. Years two and three (2021 and 2022) are advisory rate years, for customer communication and budgeting. Because the District will perform another cost of service in three years, the rate and cost recovery will not surpass the three-year period.

5. **Does each rate design scenario generate the same total rate revenues? And what are the increase in revenues per year.**

No, it is not possible to generate the same 10-year net revenues using the same annual rate increase assumption across the phase-in scenarios. The intent, however, was to design scenarios that generate comparable 10-year net revenues using a single, consistent rate increase assumption that is easy to understand (i.e., 5 percent).

Even though we have studied the effects of the base case 10- year net revenue, below are the first three years of each scenario forecasted revenue generation. Three years is used because the District will complete a second cost of service before the fourth year as stated.

Aggressive – 1 year Scenario

Year	Base Case Revenue	Increase in Revenue	Total Revenue
2020	$1,138,558	$507,966	$1,646,524
2021	$1,138,558	$814,396	$1,952,954
2022	$1,138,558	$1,119,974	$2,258,352

Moderate – 5 Year Scenario

Year	Base Case Revenue	Increase in Revenue	Total Revenue
2020	$1,138,558	$123,474	$1,262,032
2021	$1,138,558	$385,508	$1,524,066
2022	$1,138,558	$793,908	$1,932,467

Gradual – 10 Year Scenario

Year	Base Case Revenue	Increase in Revenue	Total Revenue
2020	$1,138,558	$70,442	$1,209,000
2021	$1,138,558	$210,211	$1,348,770
2022	$1,138,558	$424,686	$1,563,245

6. **How long does it take to generate revenues for reserves?**

The calculated revenue requirements from Workshop 1 did not include revenues for reserves, however the recommended targets for reserves were presented in Workshop 2. The revenue generated for reserves is dependent on the rate option chosen by the Board. Once the revenue requirement is met, then revenues for reserves can be generated.

In the first three years of the 10-year forecast, the revenue requirement is not met in any of the three rate scenarios (aggressive, moderate or gradual), meaning no revenue for reserves is projected. The Board of Directors can only adopt rates on a year-to-year basis.

Ability to Bond Projects through Debt

1. **Provide comments regarding borrowing through the issuance of bonds for large future capital outlays.**
   Bonding is not currently a part of the scope of the financial study, but staff has completed preliminary research regarding the ability to borrow through the issuance of bonds. To investigate this further, the District would need to hire a financial advisor and/or bond counsel to compile all options and start the bond rating process. This is an item of discussion for the Board of Directors in the next three years, prior to the next cost of service analysis.

Fry-Ark Mill Levy and TABOR

1. **Will a vote of the public be necessary to extend the mill levy once the project principle is paid in full?**
   This question will be addressed and discussed at the September 19, 2019 Board of Directors meeting in executive session by legal staff.

History of Rates and Surcharge Fees

1. **What is the cost justification for the "current" rates?**

Water Rates

- *1965: Water rates were applied to the Fry-Ark Project Contract to cover repayment, OM&R*
- *1974: Water sales began in 1974, $5.40/acre-foot*
- *1982: Water rate increases to $8/ acre-foot*
- *1996: Water rate increases to $9.20/ acre-foot*
- *1998: Water rate reduced to $7/acre-foot after Reclamation proposal on Irrigation "ability to pay" (a lower rate) is countered by a Board proposal for "willingness to pay" M&I rate*
- *2000: Return Flow rate set at $6/acre-foot*
- *2010: Amendment 9 to the Contract shifts water sales revenues to the Enterprise. District has the ability to adjust rate*

Surcharge Fees

- *1998: Safety of Dams surcharge to repay the M&I costs (to avoid interest) and make a $60,000 annual payment for Irrigation costs. The charge applies to Winter Water, Project carryover, and Excess Capacity storage, and all water sales: $0.25-$2.00/ acre-foot*

- *2002: Water Activity Enterprise surcharge funds programs, projects and functions of the Enterprise, as well as building reserves: $0.50-$4.00/ acre-foot*
- *2005: Well Augmentation surcharge: $2.60/ acre-foot*
- *2013: Environmental Stewardship surcharge, four programs, 20 years: $0.75/ acre-foot*

2. **Is there a Resolution, policy, or meeting minutes on the 1998 decision to charge for stored water?**
   The Resolution to charge for stored water was passed on May 21, 1998, and most recently amended on August 17, 2000: "Resolution Amending the Resolution establishing the Southeastern Colorado Water Activity Enterprise, and terminating the Southeastern Colorado Water Activity Enterprise.

   The 1998 Resolution amended the September 21, 1995 resolution establishing the Water Activity Enterprise. It added the surcharge for Safety of Dams.

   Article 5 of the Resolution states: "The Activity Enterprise is and shall be authorized to impose fees and assessments in its discretion, on the use of Fryingpan-Arkansas Project water, return flows, and storage space, in accordance with Article 45.1 of Title 37, C.R.S., and the Activity Enterprise Resolution as hereby amended."

3. **History on different type of Water storage and the fees that have paid.**
   Winter Water Storage charges were anticipated in the 1965 Contract and were first assessed in 1974 at $2.25 per acre-foot. The rate increased to $3.20/acre-foot in 1982, $3.65/acre-foot in 1996, and was reduced to $2.80/acre-foot in 1998. A surcharge of $0.25/acre-foot for Safety of Dams was also applied after 1998, raising the total to $3.05/acre-foot. In 2013, the Environmental Stewardship surcharge was added, increasing the rate to $3.80/acre-foot.

   Project Water Storage was charged $1.00/ acre-foot under the S.O.D. surcharge in 1998. As new surcharges were added, the rate went up to $2.25/acre-foot in 2002 (Enterprise surcharge), and $3/acre-foot since 2013 (Environmental Stewardship surcharge).

   If and When Storage, both municipal and agricultural within the District boundaries, was charged $0.50/per acre-foot in 1998 (S.O.D. surcharge), $1/acre-foot in 2002 (Enterprise surcharge), and $1.75/acre-foot since 2013.

   If and When Storage, outside District boundaries, was charged $2.00/acre-foot in 1998 (S.O.D. surcharge), $6/acre-foot in 2002 (Enterprise surcharge), and $6.75/acre-foot since 2013.

4. **The Water Activity Enterprise and Environmental surcharges were approved by the Board of Directors to fund specific costs. If the intent is to maintain this surcharge, how would the appropriate rate level be established?**
   A detailed examination and analysis of surcharges was not performed. Instead, all surcharge revenues were credited in the cost of service allocation process (to unsure no

double counting of such revenue) and were assumed to remain in place. If a given surcharge was to be eliminated, the cost of service would need to be re-performed. Jacobs recommended including a more detailed examination of all surcharges in the District's next cost of service analysis.

5. **<u>If the Water Activity Enterprise and Environmental surcharges were reset based on test year costs, what would be the impact on the rate level for water sales?</u>**
   If any one of the given surcharges were to be eliminated, the cost of service would need to be re-performed. Jacobs recommended including a more detailed examination of all surcharges in the District's next cost of service analysis. If surcharges were to be eliminated or reduced, an equal offsetting increase to the water rate would be needed.

Question: What would happen if the District was not able to pay OM&R costs, particularly Extraordinary Maintenance, to the Bureau of Reclamation?

Under current law, OM&R must be paid by the District in the year in which the OM&R activities occur, unless some statutory exception exists. For activities at the Fry-Ark there does not appear to be any current exceptions. This was one of the principle reasons for creating the OM&R reserve fund in Amendment 11 to the District's contract with the United States.

In Contract Article 17, one of the original contract provisions, the District has committed to:

> *cause to be levied and collected all necessary taxes, assessments, tolls, and other charges, and will use all of the authority and resources of the District to meet the obligations of the District to make in full all payments to be made pursuant to this contract on or before the date such payments become due and to meet its other obligations under this contract.*

Failure to comply with this provision would trigger action under Contract Article 16(b), which provides:

> *The payment of charges becoming due pursuant to this Contract is a condition precedent to receiving benefits under this Contract. The United States shall not make water available to the District through Fry-Ark Project facilities during any period in which the District is in arrears in the advance payment of water rates, or any OM&R charges due the United States, or is in arrears for more than 12 months in the payment of any construction charges due the United States.*

In sum, failure to make a payment for the District's obligations will result in Reclamation withholding water deliveries to the District and its beneficiaries. The only exception is if the District could gain statutory relief.

An additional remedy that Reclamation may impose is through reclaiming water sales revenues. In Amendment 9, the cost for water to be paid to Reclamation was reduced to $0.00, permitting the District, acting through its water activity enterprise, to charge for water without that charge going to Reclamation for payment of OM&R or construction repayment. Contract Article 11(c)(1) permits a Reclamation to reassess and change the cost for water on an annual basis. Should Reclamation set a water rate for payment of the District's current obligations to repayment and OM&R, this would return the water payments to Reclamation, depriving the District, acting through its water activity enterprise, of water sales revenues for other District and Enterprise purposes.

Appendix B
Proposed DRAFT Financial Planning Policies and Approved Policies

[PRELIMINARY WORKING DRAFT FOR DISCUSSION PURPOSES ONLY—PRE-DECISIONAL]

BOARD POLICY

PROPOSED DRAFT - not approved by the SECWCD Board

September 13, 2019

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

RATE SETTING POLICY

STATEMENT OF PURPOSE: The Southeastern Colorado Water Conservancy District (SECWCD) desires to be a fiscally sound organization with a financial position in which revenues support expenditures sufficiently to operate and maintain the Fryingpan-Arkansas Project and to perform its broad responsibility to study, plan, develop and protect water resources for existing and future water needs of Southeastern Colorado. The purpose of this policy is to establish a periodic rate setting process to provide funding necessary to meet the future revenue requirements of SECWCD.

1. Policy Objectives

1.1. Cost Recovery. SECWCD is a governmental entity that manages a water resource for the benefit of its rate and taxpayers. Water rates are set to recover costs, on a long-term basis, net of other revenue sources.

1.2. Financial Stability. To reliably perform its services, SECWCD must maintain a strong financial position and long-term balanced cash flows. Setting rates at levels, which, on a long-term stabilized basis, are above cost is inconsistent with SECWCD's service responsibility. However, setting rates which on an overall basis are below cost would jeopardize the financial stability of the project. Setting rates at cost also encourages economic efficiency in water use. Measurement of cost is subject to uncertainty and relies on estimates. SECWCD will endeavor to accurately measure its cost and charge this amount to its users. SECWCD must also maintain reasonable levels of cash reserves as a financial buffer to avoid undue fluctuations in rates and to ensure its ability to meet its financial obligations in the event of unexpected costs.

1.3. Price Stability and Predictability. SECWCD will endeavor to maintain relatively stable and predictable rates. SECWCD will endeavor to avoid "rate shock" and release updates or known uncertainties in a timely manner. If changes are required, the changes should be announced well in advance and, if possible, phased in over a period of time. Alternative scenarios should be presented to provide potential rate impacts if known uncertainties exist.

1.4. Operational Efficiency. SECWCD owes a duty to its tax and rate payers to operate its facilities efficiently, maintaining costs as low as possible without compromising service reliability. SECWCD is not subject to competition or regulation which in other forms of enterprise would provide an independently imposed constraint or discipline for cost containment. SECWCD nevertheless commits itself to a goal of operating its facilities at the lowest possible cost consistent with maintaining a highly reliable service SECWCD ability.

1.5. Accountability. The establishment of policies concerning water availability and rates is perhaps the most important responsibility of the SECWCD Board of Directors (Board). Rates should be considered as a package, and not in a piecemeal fashion. Water delivery policies and rates should be established in a highly public process only after due consideration and analysis of economic and financial impacts, and inviting comment from all affected parties.

1.6. Legal Compliance. Any rate making processes and policies must be accomplished in accordance with statutory and contractual requirements.

2. Periodic Cost-of-Service Studies

2.1. SECWCD will periodically conduct cost-of-service studies to determine long-term cost structure of the operation and maintenance of its facilities.

2.2. Such studies will analyze the operating components of the system and estimate annual costs, including but not limited to future administration, operations, maintenance, repair and replacement, and convert those costs to an “equivalent annual” amount over a 10-year period. This amount will be calculated so as to be sufficient to cover the estimated annual costs taking into account time value of money and the establishment and maintenance of reasonable financial reserves for operational contingencies and self-insurance.

2.3. Costs shall be allocated to two customer groups: Municipal and Industrial (M&I) and Irrigation customer groups. Cost allocation shall be performed using both uniform cost allocation and a split cost allocation basis.

2.4. Cost-of-Service studies will be conducted on a triennial basis (every 3 years).

2.5. Additional studies (e.g., condition assessments, capital planning, risk mitigation, etc.) will be conducted periodically, as needed, to support the cost-of-service study.

3. Annual Rate Setting Process

3.1. The annual rate-setting process will evaluate two customer groups: M&I and Irrigation. Rates will to be charged to each group will be determined based on a thorough understanding of the future needs and costs of the SECWCD, as determined through periodic cost-of-service studies.

3.2. In general, rates will be considered as a package, and not individually. In an exceptional circumstance the Board may establish a new rate or user category. In any such action, the Board shall consider the financial impacts to the project and effects on other customers.

3.3. Rates will be set only after being publicly announced and providing adequate time for public comment. The suggested calendar for the rate setting process, for the following year, is shown below:

3.3.1. June – July staff delivers proposed rate schedule and analysis to Board and customers for study; interested parties are invited to submit written comments;

3.3.2. June – July Staff holds customer workshop;

3.3.3. August public comments are analyzed and reviewed by staff and preliminary rate schedule is sent to the Finance Committee for a recommendation to the Board.

3.3.4. August Board adopts preliminary rate schedule (first reading).

3.3.5. November – December Board adopts final rate schedule (second reading).

3.4. Following adoption of rates, the following procedure will be followed:

3.4.1. March —SECWCD notifies provided allocation request forms with that year's rate schedule.

3.4.2. March—Customers submit in writing an allocation request form with desired annual allocation.

3.4.3. May—SECWCD customers are informed of their annual allocation and total billing.

3.4.4. September— Possible refunds are processed to customer if estimated allocation and delivers are not met.

3.5. The Board retains its authority permitted under water delivery contracts to adjust rates during the year if rates prove inadequate to cover cost, and the Board determines that an interim adjustment of rates is in the best interest of the project.

4. Forward Rate Guidance

4.1. SECWCD's rate-setting process will be annual. SECWCD will announce and publish rate schedules for three years during its annual rate setting process.

4.2. The first year of the primary rate schedule will be considered "firm" pricing (adopted by the Board during the annual rate setting process) and subject to change only in emergency circumstances and if a change would be permitted under applicable contracts.

4.3. The second and third year of the rate schedule will be considered "advisory," and will become firm following Board approval during the annual rate setting process.

4.4. Any remaining years in the rate schedule are "forecasted" for customer planning purposes only, but subject to change in subsequent primary rate-setting or cost-of-service study years.

4.5. Rate updates affecting advisory or forested rates may be made if there are material changes in assumptions made when these rates were originally published.

[PRELIMINARY WORKING DRAFT FOR DISCUSSION PURPOSES ONLY – PRE-DECISIONAL]

BOARD POLICY

PROPOSED DRAFT - not approved by the SECWCD Board

September 13, 2019

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

DEBT MANAGEMENT POLICY

STATEMENT OF PURPOSE: The Southeastern Colorado Water Conservancy District (SECWCD) desires to have a clear, concise, and comprehensive debt policy documenting its decision-making process, identifying clear objectives, demonstrating a commitment to long-term financial planning and rate-setting, and integrating debt policy with related financial planning policies: Rate-Setting Policy, Reserves Policy, Capital Planning Policy, and other financial policies, procedures, and practices. The purpose of this policy is to provide SECWCD with a guide to issuance and use of debt to fund capital projects or to refund/refinance/restructure outstanding debt.

At the time of this writing, the SECWCD's outstanding debt consists of its repayment contract with the U.S. Bureau of Reclamation (Contract No. 5-07-70-W0086, Between the United States of America and the Southeastern Colorado Water Conservancy District, Fryingpan-Arkansas Project, Colorado), and its $17.2 million hydropower loan from the Colorado Water Conservation Board.

It is understood that SECWCD shall separately retain an independent registered municipal advisor that will provide it with advice on issuance of securities and financial products. It is further understood that SECWCD may require clarification of its legal authority and/or its creditworthiness to issue general obligation, revenue bond, or other debt. SECWCD will likely require additional legal authorization(s) pursuant to federal laws and other legal requirements.

This debt management policy is limited in scope until further consultations are held with SECWCD, its financial advisor, and legal counsel.

1. Policy Objectives

1.1. Compliance: SECWCD will ensure compliance with all laws, legal agreements, contracts, best practices, and adopted policies related to debt issuance and management, including:

- Efficiency: SECWCD will promote cooperation and coordination with all stakeholders in the financing and delivery of services by seeking the lowest cost of capital reasonably available and minimizing financing costs for capital projects and other debt issuances.
- Effectiveness: SECWCD will promote sound financial management to maximize and best utilize future debt capacity by maximizing administrative and operating flexibility, minimizing legal and financial risk, maintaining an appropriate level of cash reserves to meet both expected and unexpected cash flow needs, and maintaining reasonable and justifiable levels of rates and fees that address the current and future needs of stakeholders.
- Accountability and Transparency: SECWCD will ensure that the duties and responsibilities of those charged with the implementation of the Debt Policy are clearly conveyed and understood, and that the Debt Policy is implemented in accordance with the following tenets:
  - Providing the Board and all SECWCD's stakeholders with the required information, in sufficient detail and with ample time, to allow for assessment and guidance.
  - Addressing and mitigating debt portfolio risks.
  - Avoiding conflicts of interest.
  - Fully disclosing all proposed and actual costs in a timely manner, to include the selection of and payment for professional services associated with the issuance of debt.
  - Reviewing the debt financing decision, implementation, and maintenance plans with the Board.
  - Timely providing all disclosures required by law.
- Creditworthiness. SECWCD desires to retain strong creditworthiness as evidenced through independent bond credit rating opinions, which are based partially on establishing formal financial management policies, including debt management.

2. Authorization

2.1. SECWCD's Board is responsible for authorizing all debt issuance via a Board resolution. The Board is also responsible for approving the Debt Policy and any material changes to it.

2.2. Several SECWCD Board members and staff, District officials, and outside advisors are critical in the debt issuance process. This includes but is not limited to:

- SECWCD's Board, Board Chairman, Executive Director, and Finance Manager
- General Counsel
- Bond Counsel
- Disclosure Counsel
- Financial Advisor(s)
- Feasibility Consultant(s)
- Independent Consulting Engineer

3. Financing Transaction Team

3.1. SECWCD will assemble a Financing Team that will provide advice and support for the best execution of each debt financing. The Financing Team may consist of multiple parties with distinct responsibilities and is generally comprised of both SECWCD staff and outside professional consultants. These outside professional consultants include the Financial

Advisor, Bond, Disclosure and Tax Counsel, Feasibility Consultant, Independent Consulting Engineer, Underwriters, Underwriter's Counsel, Printer; Trustee, Verification Agent, Escrow Agent, and others as deemed necessary by the Executive Director.

3.2. SECWCD will select the members of the Financing Team through a competitive process. However, SECWCD may also directly engage consultants on a case-by-case basis, if it is determined to be in the best interest of SECWCD.

3.3. SECWCD requires that its consultants and advisors provide objective advice and analysis, maintain the confidentiality of SECWCD's financial plans, and be free from any conflicts of interest.

3.4. All Financing Team Members will be required to provide full and complete disclosure, relative to agreements with other Financing Team members and outside parties. The extent of disclosure may vary depending on the nature of the transaction. However, in general terms, no agreements shall be permitted which could compromise the firm's or individual's ability to provide independent advice, which is solely in the District's best interests or which could reasonably be perceived as a conflict of interest.

[PRELIMINARY WORKING DRAFT FOR DISCUSSION PURPOSES ONLY – PRE-DECISIONAL]

BOARD POLICY

PROPOSED DRAFT - not approved by the SECWCD Board

September 13, 2019

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

UNRESTRICTED RESERVES POLICY

STATEMENT OF PURPOSE: The Southeastern Colorado Water Conservancy District (SECWCD) desires to be a fiscally sound organization with an adequate level of reserve funds to manage the numerous risks and uncertainties that threaten its ability to deliver water through the Fryingpan-Arkansas Project and to perform its broad responsibility to study, plan, develop and protect water resources for existing and future water needs of Southeastern Colorado. The purpose of this policy is to establish reserve funds required for (i) operations and maintenance activities in years of below average income due to drought or other events or contingencies, (ii) major infrastructure or equipment failures, (iii) extraordinary expenses associated with major maintenance and rehabilitation projects, and (iv) new capital projects and programs.

1. Policy Objectives

1.1. Reliability. SECWCD is committed to continue providing high level Project reliability and service that has come to be expected of the organization since its inception, and has a duty and responsibility to administer the Project, and the organization and its facilities efficiently and effectively.

1.2. Creditworthiness. SECWCD desires to retain strong creditworthiness as evidenced through independent bond credit rating opinions, which are based partially on levels of financial reserves to fund known and unforeseen risks.

1.3. Financial Stability. To reliably perform its services, SECWCD must maintain reasonable levels of cash reserves as a financial buffer to avoid undue fluctuations in rates and to ensure its ability to meet its financial obligations in the event of unexpected costs.

1.4. Accountability. The SECWCD Board of Directors (Board) shall authorize any and all reserve fund expenditures through the budget process.

1.5. Legal Compliance. Reserves policies are to be established and accomplished in accordance with statutory and contractual requirements. This policy does not modify or supersede requirements to maintain certain levels of restricted reserves as specified within various existing and future agreements, including but not limited to Amendment No. 11 To Contract No. 5-07-70-W0086, Between the United States of America and the Southeastern Colorado Water Conservancy District, Fryingpan-Arkansas Project, Colorado.

2. Authorization

2.1. The Executive Director is authorized to commit and expend reserve funds as necessary in his/her judgment to protect life and property, provided that as soon as practicable, the Executive Director shall notify the Board of such action and call an Emergency meeting of the Board to approve such commitment and expenditure.

2.2. The Board directs and authorizes the Executive Director to:

2.2.1. Maintain accurate accounting and reporting of all reserve funds, to report to the Finance Committee and the Finance Manager to ensure that monies are timely and properly invested for each fund, and to cause the interest from any reserve fund to accrue to the appropriate fund.

2.2.2. Provide information and recommendations to the Board regarding the need to obligate reserve funds on the basis of a 10-year projection. Such projection shall be updated annually and presented to the Board concurrent with the budget process.

2.2.3. Report the amount of reserves needed to meet shortfalls created by annual or extended droughts or other contingencies.

2.2.4. Provide information and recommendations to the Board regarding the normal and emergency use of reserve funds.

2.2.5. Set aside for expenditure and create accounting for any Reserve Fund monies obligated by the Board for specific purposes.

3. Categories and Funding of Unrestricted Reserve Funds

3.1. Cash. SECWCD will hold working cash in an on-demand account sufficient to fund cash flow variations in a typical operating cycle. From time to time, SECWCD will evaluate its cash accounts and transfer funds from those cash accounts to reserves as directed by the Board. Those transactions will include transfers into unrestricted reserve funds and into reserves that are directed by terms of other SECWCD policies, agreements, or actions.

3.2. The SECWCD will establish for planning and operational purposes three categories of unrestricted reserve funds: Operating Reserve, Capital Reserve, and Exposure Reserve, as follows:

Reserve Category	Purpose	Target Funding Level
Operating Reserve	Covers potential interruptions in District Operations and District Enterprise Fund revenue streams; and may be used to smooth and stabilize water rates over the short term.	Minimum 100 percent (12 months) of anticipated District Operations and Enterprise Fund operating costs not including depreciation.
Capital Reserve	Funds capital repair, replacement, or betterment of SECWCD properties; funds other capital activities that may be undertaken by SECWCD.	Minimum of 1 percent and up to 2 percent of the most recently estimated gross (non-depreciated) asset value of SECWCD properties (non-Project assets).
Exposure Reserve	Covers extraordinary, unforeseen events not otherwise covered by reserves or insurance.	An initial $5 million, to be supplemented by risk-based economic quantification of potential administrative, environmental, and other financial exposures.

3.3. SECWCD may designate one or more new categories of reserves, including specific capital reserve accounts, on an as-needed basis to partially or fully fund a specific known extraordinary repair, replacement, betterment, or new capital improvement project. Initial and ongoing funding for these designated capital reserves may be transferred from the Capital Reserve in part, or in whole, as approved by the Board.

4. Periodic Evaluation of Reserves

4.1. SECWCD will periodically evaluate reserve levels and will budget and fund depleted reserves from its annual operating budget equivalent to or exceeding 5 percent of the annual District Operations and Enterprise Fund operating budgets for that year to fund reserves, unless financial conditions dictate otherwise.

4.2. SECWCD recognizes that not all reserve funds can be initially or remain fully funded at the specified target levels, and that some level of prioritization is required for initial and ongoing funding. In general, SECWCD desires that the operating reserve be initially fully funded and maintain the highest priority for funding as needed. The Board retains the discretion to modify reserve funding priorities and allocations, and to make transfers between reserve funds as needed.

[PRELIMINARY WORKING DRAFT FOR DISCUSSION PURPOSES ONLY – PRE-DECISIONAL]

BOARD POLICY

PROPOSED DRAFT - not approved by the SECWCD Board

September 13, 2019

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT

CAPITAL PLANNING POLICY

STATEMENT OF PURPOSE: The Southeastern Colorado Water Conservancy District (SECWCD) desires to have a capital planning policy that sets forth its approach capital planning, including stakeholder involvement, and a commitment to long-term capital planning integrated with its financial planning and management practices. Financial planning and management practices include rate-setting, reserves funding, debt management, annual budgeting, 3-year business planning, and other financial policies, procedures, and practices. The purpose of this policy is to provide SECWCD with a guide to preparation and implementation of its capital planning.

1. Policy Objectives

1.1. Definition. The SECWCD Capital Improvement Program (CIP) is a 20-year capital investment plan that encompasses all annual capital expenditures on individual capital projects—generally nonrecurring investments in new or existing infrastructure, including new construction, expansion, renovation, or replacement projects, with a useful life of at least 10 years. The project cost threshold of a capital improvement is generally understood to exceed $250,000 in total value. Capital project costs can include the cost of land, engineering, architectural planning, legal services, and contract services needed to complete the project.

1.2. Application. This policy applies to all capital planning, including cost-sharing or betterment projects for the Fryingpan-Arkansas Project (General Fund) and SECWCD-led capital projects for properties, facilities, and assets (Enterprise Fund) of the District or other enterprise functions.

1.3. Accountability and Transparency: SECWCD will ensure that the duties and responsibilities of those charged with the implementation of the Capital Planning Policy are clearly conveyed and understood, and that the Capital Planning Policy is implemented in accordance with the following tenets:

- Providing the Board and all SECWCD's stakeholders with the required information, in sufficient detail and with ample time, to allow for assessment and guidance.
- Fully disclosing all proposed and capital projects and costs in a timely manner, to include the selection of and payment for professional services associated with infrastructure planning and development.
- Reviewing the capital project plan with the Board on an annual basis.

1.4. Creditworthiness. SECWCD desires to retain strong creditworthiness as evidenced through independent bond credit rating opinions, which are based partially on establishing formal financial management policies, including long-range capital planning.

2. Authorization

2.1. SECWCD's Board is responsible for reviewing the 20-year capital plan and providing direction to staff.

2.2. SECWCD Board members and staff, District officials, and outside advisors are critical in the capital planning process. This includes but is not limited to:

- The Board President has approval authority over this Capital Planning Policy and authority over the priorities within the CIP.
- The Finance Committee is a standing committee of the SECWCD and considers and recommends to the Board the overall amount and allocation of capital monies within the CIP each year, as well as approving projects in accordance with the District by-laws.
- The Executive Director is accountable for the CIP and prioritization in accordance with the Capital Planning Policy. The Executive Director is the Chair of the Capital Planning work group, which shall make CIP recommendations to the Finance Committee.

3. Procedures

3.1. The CIP presents the 20-year rolling plan for capital allocation and prioritization. The CIP will be updated and published each year.

3.2. The CIP will be presented for information to the Board on an annual basis. No formal action by the Board is required.

3.3. Proposed projects will be presented to Finance Committee annually for the purpose of consultation.

3.4. The SECWCD will set aside an annual allocation in its budget to fund the CIP, or towards capital improvement reserve funds. SECWCD may designate one or more new categories of reserves, including specific capital reserve accounts, on an as-needed basis to partially or fully fund a specific known extraordinary repair, replacement, betterment or new capital improvement project. Initial and ongoing funding for these designated capital reserves may be transferred from the Capital Reserve in part, or in whole, as approved by the Board of Directors.

3.5. Capital projects will be required to identify benefits to justify the requested capital investment. These will need to be stated in terms of either revenue generation, revenue protection, compliance with applicable laws, amenity (or a combination of these), and to estimate impact on operational and/or overhead expenses following completion.

3.6. The CIP will be used as the basis for rate-setting when periodic cost-of-service studies are performed every 3 years. The planning process will include an assessment of the CIP's fiscal impact on SECWCD so that the final capital plan is based on what can realistically be funded rather than being simply a wish list of unfunded needs. A procedure for accumulating necessary capital reserves (and/or debt-financing) shall be included in the study.

3.7. The Board reserves the right to reduce funding allocations for capital projects at any time, and upon the recommendation of the Executive Director.

3.8. The Board may make changes to this policy from time to time.

3.9. SECWCD will describe the role of the public and other external stakeholders in the capital planning process. The level and type of public participation should be consistent with community expectations and past experience.

SECWCD & SECWAE BOARD POLICIES

Adopted by the Board: October 17, 2019

SOUTHEASTERN COLORADO WATER ENTERPRISE ACTIVITY RATE-SETTING POLICY

Water rates are set to recover costs, on a long-term basis, net of other revenue sources for the Southeastern Colorado Water Activity Enterprise (SECWAE).

SECWAE will review rates, at least, annually as part of the long-term planning process.

A cost-of-service study will be performed every three years, or as necessary, to forecast the revenue requirement. The cost-of-service study is based on a 10-year planning horizon, called the Forecast Period. Rates are set for one year only, called the Firm Year. The second and third years are Advisory Years and align with the District's three-year Business Plan.

Costs shall be allocated to two customer groups: Municipal and Irrigation customer groups.

Rates, under general circumstances, should only be set following public announcement and an adequate provision of time for public comment.

The Board retains its authority permitted under water delivery contracts to adjust rates, as deemed necessary, if rates prove inadequate to cover cost.

SOUTHEASTERN COLORADO CONSERVANCY DISTRICT AND WATER ACTIVITY ENTERPRISE DEBT MANAGEMENT POLICY

This policy is a guide to the Southeastern Colorado Water Conservancy District (SECWCD) and its Activity Enterprise (SECWAE) for the issuance and use of debt to fund capital projects or to refund/refinance/restructure outstanding debt. SECWCD and SECWAE will ensure compliance with all laws, legal agreements, contracts, best practices, and adopted policies related to debt issuance and management.

SECWCD and SECWAE will promote cooperation and coordination with all stakeholders in the financing and delivery of services by seeking the lowest cost of capital reasonably available and minimizing financing costs for capital projects and other debt issuances.

SECWCD's and SECWAE's Board is responsible for authorizing all debt issuance via a Board resolution. The Board is also responsible for approving the Debt Policy and any material changes to it. SECWCD and SECWAE Board members and staff, District officials, and outside advisors are critical in the debt issuance process.

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT AND WATER ACIVITY ENTERPRISE
UNRESTRICTED RESERVES POLICY

The Southeastern Colorado Water Conservancy District (SECWCD) and its Water Activity Enterprise (SECWAE) have established Unrestricted Reserve funds for: (i) operations and maintenance activities in years of below average income due to drought or other events or contingencies, (ii) major infrastructure or equipment failures, (iii) extraordinary expenses associated with major maintenance and rehabilitation projects, and (iv) new capital projects and programs.

Reserve policies are to be established and accomplished in accordance with statutory and contractual requirements. This policy does not modify or supersede requirements to maintain certain levels of restricted reserves as specified within various existing and future agreements, including but not limited to Amendment No. 11 To Contract No. 5-07-70-W0086, Between the United States of America and the Southeastern Colorado Water Conservancy District, Fryingpan-Arkansas Project, Colorado, as it may be amended, supplemented or converted. The board has the discretion to change funding priorities.

The SECWCD and SECWAE Board will establish funding targets and priorities of Unrestricted Reserves, and will adjust periodically as necessary.

The Executive Director is authorized to commit and expend reserve funds as necessary in his/her judgment to protect life and property, provided that as soon as practicable, the Executive Director shall notify the Board of such action and obtain Board approval for such commitment and expenditure in a timely manner.

Categories of Reserve Funds:

Reserve Category	Purpose	Target Funding Level
Cash Reserve	Working cash sufficient to fund cash-flow variations in a typical operating cycle.	(To be determined)
Operating Reserve	Covers potential interruptions in District Operations and District Enterprise Fund revenue streams; and may be used to smooth and stabilize water rates over the short term.	(To be determined)
Capital Reserve	Funds capital repair, replacement, or betterment of SECWCD properties; funds other capital activities that may be undertaken by SECWCD.	(To be determined)
Exposure Reserve	Covers extraordinary, unforeseen events not otherwise covered by reserves or insurance.	(To be determined)

SOUTHEASTERN COLORADO WATER CONSERVANCY DISTRICT AND WATER ACTIVITY ENTERPRISE
CAPITAL PLANNING POLICY

The Southeastern Colorado Water Conservancy District (SECWCD) Capital Improvement Program (CIP) is a 20-year capital investment plan that encompasses all annual capital expenditures on individual capital projects—generally nonrecurring investments in new or existing infrastructure, including new construction, expansion, renovation, or replacement projects, with a useful life of at least 10 years.

This policy applies to the SECWCD and its Water Activity Enterprise.

The Executive Director, in consultation with the Board President, will be responsible for development of the CIP. The Finance Committee, a standing committee of the Board, will review the CIP annually and forward it to the Board for approval

The CIP presents the 20-year rolling plan for capital allocation and prioritization. The CIP will be updated and published each year. Capital projects will be required to identify benefits to justify the requested capital investment.

Appendix C
20-Year Capital Improvement Program

20-Year Capital Improvement Program Description by Fund

Fry-Ark Project Subfund

The items listed in this section are longer-term expenses which would be met from the reserve fund established in Amendment 11 to the Fryingpan-Arkansas Project Contract.

Pueblo Dam Interconnect (Betterment of Fry-Ark Project)

The Pueblo Dam Interconnect would connect the North and South Outlets. The cost of Interconnect was calculated by Reclamation to be about $16 million in 2016 dollars. The timing of the project would be in the mid-2020s, and it would take four years to plan, permit and build. The District would start it in 2022, complete it in 2025. The numbers represent the District paying the entire cost, with the expectation that users of the Interconnect would repay the District.

Recovery of Storage

These figures are based on 1998-2000 estimates under the Preferred Storage Options Plan. There are high-level cost estimates for enlargement of Pueblo Reservoir, Turquoise Reservoir and Twin Lakes Reservoir. The enlargements were envisioned to meet increasing storage needs. The methods for enlargement varied at each facility. Costs represent maximum amounts, and do not incorporate alternative methods such as dredging. The District is staggering planning and construction activities according to the most aggressive scenario to acquire maximum storage.

Catastrophic Failure

The catastrophic failure is for one asset of the Fry-Ark Project and incorporates costs to stabilize, repair, and replace a failed asset, the loss of income to the District from the event, and the damage to property or human life. The District cost share for these purposes is estimated at 23.03%, based on the share of reimbursable expenses the District paid when the Project was constructed.

Fry-Ark System Betterments

This is an estimate determined by proprietary District studies of ways to improve the yield of the Fry-Ark Project through methods which would require technical evaluation and approval of Reclamation. This work would be at the District's request outside routine OM&R or RAX costs.

District Operations Subfund

To be Determined

Water Subfund

These activities are related to business operations.

Restoration of Yield

An obligation of the District (through its Enterprise created in a 2004 agreement among six parties, with a seventh partner added in 2015). The District has a 4.76% share of costs to develop storage downstream from Pueblo Reservoir, but does not drive the timing or cost of this storage. Large periodic costs are anticipated.

Hydroelectric Subfund

To be Determined

The complete 20-year CIP is provided in Table C-1.

Table C-1

2018-2038 Capital Improvement Plan (CIP) Projects ($2019)

Fry-Ark Project Subfund

Expenditure	CIP	2018 Adopted Budget	2019 Adopted Budget	2020 Forecast Budget	2021 Forecast Budget	2022 Forecast Budget	2023 Forecast Budget	2024 Forecast Budget	2025 Forecast Budget	2026 Forecast Budget	2027 Forecast Budget	2028 Forecast Budget	2029 Forecast Budget	2030 Forecast Budget	2031 Forecast Budget	2032 Forecast Budget	2033 Forecast Budget	2034 Forecast Budget	2035 Forecast Budget	2036 Forecast Budget	2037 Forecast Budget	2038 Forecast Budget	Total Cost ($2019)	Total Cost (Original Estimate)
20-XXXX-XXX	Pueblo Dam Interconnect	-	-	-	-	-	-	-	-	-	-	-	-	2,956,824	351,290	2,396,652	12,552,677	-	-	-	-	-	18,257,443	18,257,443
20-XXXX-XXX	Recovery of Storage: Pueblo Reservoir	-	-	-	-	-	-	-	-	-	-	-	-	3,601,258	21,736,990	21,736,990	21,736,990	21,736,990	21,736,990	21,736,990	21,736,990	21,736,990	177,497,175	109,700,000
20-XXXX-XXX	Recovery of Storage: Turquoise Reservoir	-	-	-	-	-	-	-	-	-	-	-	-	2,787,623	2,584,215	2,584,215	2,584,215	2,584,215	2,584,215	2,584,215	2,584,215	2,584,215	23,461,340	14,500,000
20-XXXX-XXX	Recovery of Storage: Twin Lakes Reservoir	-	-	-	-	-	-	-	-	-	-	-	-	15,158,012	14,053,040	14,053,040	14,053,040	14,053,040	14,053,040	14,053,040	14,053,040	14,053,040	127,582,328	77,000,000
20-XXXX-XXX	Catastrophic Failure Risk per Asset @ 23.03% reimb	-	-	-	-	-	-	-	-	-	-	-	-	15,450,571	15,450,571	15,450,571	15,450,571	15,450,571	15,450,571	15,450,571	15,450,571	15,450,571	603,800,000	603,800,000
20-XXXX-XXX	Fry-Ark System Betterments (Allocation Yield) (1/2 District 1/2 Enterprise)	-	-	-	-	-	-	-	-	-	-	-	-	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	9,000,000	9,000,000
	Fry-Ark Features																							
20-XXXX-XXX	Ruedi Dam																						-	
20-XXXX-XXX	Boustead Tunnel																						-	
20-XXXX-XXX	Sugar Loaf Dam																						-	
20-XXXX-XXX	Pueblo Dam																						-	
20-XXXX-XXX	Twin Lakes																						-	
20-XXXX-XXX	Mount Elbert Forbay																						-	
20-XXXX-XXX	Mount Elbert Pipeline / Half Moon																						-	
20-XXXX-XXX	Mount Elbert Power Plant																						-	
20-XXXX-XXX	South Side Collection System																						-	
20-XXXX-XXX	North Side Collection System																						-	
	Total Fry-Ark Project Subfund CIP	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**40,954,288**	**55,176,105**	**57,221,467**	**67,377,492**	**54,824,815**	**54,824,815**	**54,824,815**	**54,824,815**	**54,824,815**	**959,598,286**	**832,257,444**

District Operations Subfund

Expenditure	CIP	2018 Adopted Budget	2019 Adopted Budget	2020 Forecast Budget	2021 Forecast Budget	2022 Forecast Budget	2023 Forecast Budget	2024 Forecast Budget	2025 Forecast Budget	2026 Forecast Budget	2027 Forecast Budget	2028 Forecast Budget	2029 Forecast Budget	2030 Forecast Budget	2031 Forecast Budget	2032 Forecast Budget	2033 Forecast Budget	2034 Forecast Budget	2035 Forecast Budget	2036 Forecast Budget	2037 Forecast Budget	2038 Forecast Budget	Total Cost ($2019)	Total Cost (Original Estimate)
20-XXXX-XXX	TBD #1																						-	
20-XXXX-XXX	TBD #2																						-	
20-XXXX-XXX	TBD #3																						-	
20-XXXX-XXX	TBD #4																						-	
	Total District Operations Subfund CIP	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Enterprise (Water Subfund)

Expenditure	CIP	2018 Adopted Budget	2019 Adopted Budget	2020 Forecast Budget	2021 Forecast Budget	2022 Forecast Budget	2023 Forecast Budget	2024 Forecast Budget	2025 Forecast Budget	2026 Forecast Budget	2027 Forecast Budget	2028 Forecast Budget	2029 Forecast Budget	2030 Forecast Budget	2031 Forecast Budget	2032 Forecast Budget	2033 Forecast Budget	2034 Forecast Budget	2035 Forecast Budget	2036 Forecast Budget	2037 Forecast Budget	2038 Forecast Budget	Total Cost ($2019)	Total Cost (Original Estimate)
10-XXXX-XXX	Restoration of Yield - Storage Facility #1			900,000																			900,000	900,000
10-XXXX-XXX	Restoration of Yield - Storage Facility #2		7,500	150,000	200,000	200,000	200,000	200,000	1,000,000														1,957,500	1,957,500
10-XXXX-XXX	Restoration of Yield - Storage Facility #3							200,000	200,000	200,000	200,000	200,000	1,000,000										2,000,000	2,000,000
10-XXXX-XXX	Restoration of Yield - Storage Facility #4													200,000	200,000	200,000	200,000	200,000	1,000,000				2,000,000	2,000,000
10-XXXX-XXX	Development and Improvement - TBD #1																						-	-
10-XXXX-XXX	Development and Improvement - TBD #2																						-	-
	Total Water Subfund CIP	**-**	**7,500**	**1,050,000**	**200,000**	**200,000**	**200,000**	**400,000**	**1,200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**-**	**-**	**-**	**6,857,500**	**6,857,500**

Enterprise (Hydroelectric Subfund)

Expenditure	CIP	2018 Adopted Budget	2019 Adopted Budget	2020 Forecast Budget	2021 Forecast Budget	2022 Forecast Budget	2023 Forecast Budget	2024 Forecast Budget	2025 Forecast Budget	2026 Forecast Budget	2027 Forecast Budget	2028 Forecast Budget	2029 Forecast Budget	2030 Forecast Budget	2031 Forecast Budget	2032 Forecast Budget	2033 Forecast Budget	2034 Forecast Budget	2035 Forecast Budget	2036 Forecast Budget	2037 Forecast Budget	2038 Forecast Budget	Total Cost ($2019)	Total Cost (Original Estimate)
10-XXXX-XXX	Hydroelectric (CWCB)	9,688,860	894,880																				10,583,740	10,583,740
10-XXXX-XXX	Hydro retainment	-	860,944																				860,944	860,944
10-XXXX-XXX	TBD #1																						-	-
10-XXXX-XXX	TBD #2																	200,000	200,000	200,000	200,000	1,000,000	1,800,000	1,800,000
10-XXXX-XXX	TBD #3																						-	-
	Total Hydroelectric Subfund CIP	**9,688,860**	**1,755,824**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**13,244,684**	
	Total Enterprise CIP	**9,688,860**	**1,763,324**	**1,050,000**	**200,000**	**200,000**	**200,000**	**400,000**	**1,200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**200,000**	**200,000**	**200,000**	**200,000**	**400,000**	**1,200,000**	**200,000**	**200,000**	**1,000,000**	**20,102,184**	

Appendix D
Financial Plan and Revenue Requirements

Scenario:
Base Case

Table D-1a
SECWCD Financial Strategy and Sustainability Study
Projection of Cash Flow - Fry-Ark Project Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operating Revenue													
1	Fountain Valley Authority Contract Revenue	$ 5,355,898	$ 5,362,911	$ 5,360,000	$ 5,360,000	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	Operating Revenue	7,495,434	7,902,884	7,956,534	8,205,000	8,425,000	8,671,000	8,924,000	9,185,000	9,471,000	9,730,000	10,014,000	10,307,000	10,609,000
3	Additional Revenue Required	-	-	-	-	-	-	-	-	-	-	-	-	-
4	**Total Operating Revenue**	**12,851,000**	**13,266,000**	**13,317,000**	**13,565,000**	**9,425,000**	**8,671,000**	**8,924,000**	**9,185,000**	**9,471,000**	**9,730,000**	**10,014,000**	**10,307,000**	**10,609,000**
	Operating Expenses													
5	Fountain Valley Authority Contract Payments	5,355,898	5,362,911	5,360,000	5,360,000	1,000,000	-	-	-	-	-	-	-	-
6	Operation and Maintenance Expenses	505,734	564,459	391,982	413,000	400,000	405,000	410,000	415,000	439,000	426,000	432,000	437,000	443,000
7	Bureau Operations and Maintenance Base	1,676,110	1,764,587	1,817,524	1,839,000	1,895,000	1,951,000	2,010,000	2,070,000	2,132,000	2,196,000	2,262,000	2,330,000	2,400,000
8	**Total Operating Expenses**	**7,538,000**	**7,692,000**	**7,570,000**	**7,612,000**	**3,295,000**	**2,356,000**	**2,420,000**	**2,485,000**	**2,571,000**	**2,622,000**	**2,694,000**	**2,767,000**	**2,843,000**
9	**Net Operating Revenue**	**5,313,000**	**5,574,000**	**5,747,000**	**5,953,000**	**6,130,000**	**6,315,000**	**6,504,000**	**6,700,000**	**6,900,000**	**7,108,000**	**7,320,000**	**7,540,000**	**7,766,000**
	Debt Service													
10	Existing	4,683,638	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572
11	Proposed	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Total Debt Service	4,683,638	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572
13	**Net Revenue After Debt Service**	**629,000**	**4,106,000**	**4,279,000**	**4,485,000**	**4,662,000**	**4,847,000**	**5,036,000**	**5,232,000**	**5,432,000**	**5,640,000**	**5,852,000**	**6,072,000**	**6,298,000**
	Other Cash Inflows/(Outflows)													
14	Bureau Extraordinary Expenditures (RAX)	(637,658)	1,908,671	(4,742,544)	(5,757,000)	(8,047,000)	(4,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
15	Loan Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Capital Improvements Program	-	-	-	-	-	-	-	-	-	-	-	-	-
17	**Total Other Cash Inflows/(Outflows)**	**(638,000)**	**1,909,000**	**(4,743,000)**	**(5,757,000)**	**(8,047,000)**	**(4,000)**	**(1,000,000)**	**(1,000,000)**	**(1,000,000)**	**(1,000,000)**	**(1,000,000)**	**(1,000,000)**	**(1,000,000)**
18	Annual Surplus/(Deficiency)	(9,000)	6,015,000	(464,000)	(1,272,000)	(3,385,000)	4,843,000	4,036,000	4,232,000	4,432,000	4,640,000	4,852,000	5,072,000	5,298,000
19	Beginning Fund Balance		-	4,298,000	3,834,000	2,562,000	(823,000)	4,020,000	8,056,000	12,288,000	16,720,000	21,360,000	26,212,000	31,284,000
20	**Ending Fund Balance**	**$ -**	**$ 4,298,000**	**$ 3,834,000**	**$ 2,562,000**	**$ (823,000)**	**$ 4,020,000**	**$ 8,056,000**	**$ 12,288,000**	**$ 16,720,000**	**$ 21,360,000**	**$ 26,212,000**	**$ 31,284,000**	**$ 36,582,000**

Table D-1b
SECWCD Financial Strategy and Sustainability Study
Revenue Projections - Fry-Ark Project Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Fountain Valley Authority Contract													
1	Fountain Valley Authority contract revenue	$ 5,355,898	$ 5,362,911	$ 5,360,000	$ 5,360,000	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Operating Revenues													
2	Property taxes													
3	Contract mill levy collection	7,089,728	7,441,763	7,500,325	7,725,335	7,957,095	8,195,808	8,441,682	8,694,932	8,955,780	9,224,454	9,501,187	9,786,223	10,079,810
4	Abatement and refund of tax collections	39,391	31,866	76,277	78,565	80,922	83,350	85,850	88,426	91,079	93,811	96,625	99,524	102,510
5	Prior year tax	(17,357)	(6,488)	(12,050)	(12,412)	(12,784)	(13,167)	(13,562)	(13,969)	(14,388)	(14,820)	(15,265)	(15,723)	(16,194)
6	Subtotal property taxes	7,111,762	7,467,141	7,564,552	7,791,489	8,025,233	8,265,990	8,513,970	8,769,389	9,032,471	9,303,445	9,582,548	9,870,025	10,166,125
7	Winter water storage	122,411	169,784	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600
8	Excess capacity contract	261,261	265,959	272,382	275,551	280,510	285,534	290,624	295,844	301,129	306,545	312,026	317,572	323,314
9	RRA fee reimbursement	-	-	2,000	20,000	2,000	2,000	2,000	2,000	20,000	2,000	2,000	2,000	2,000
10	**Subtotal Operating Revenues:**	**7,495,434**	**7,902,884**	**7,956,534**	**8,204,639**	**8,425,343**	**8,671,124**	**8,924,193**	**9,184,833**	**9,471,199**	**9,729,589**	**10,014,174**	**10,307,196**	**10,609,039**
	Non-Operating Revenues													
11	**Subtotal Non-Operating Revenues:**	-	-	-	-	-	-	-	-	-	-	-	-	-
12	**Total Revenue:**	**$ 7,495,434**	**$ 7,902,884**	**$ 7,956,534**	**$ 8,204,639**	**$ 8,425,343**	**$ 8,671,124**	**$ 8,924,193**	**$ 9,184,833**	**$ 9,471,199**	**$ 9,729,589**	**$ 10,014,174**	**$ 10,307,196**	**$ 10,609,039**
13	Percent Change (operating)				3.1%	2.7%	2.9%	2.9%	2.9%	3.1%	2.7%	2.9%	2.9%	2.9%
14	Percent Change (total)				3.1%	2.7%	2.9%	2.9%	2.9%	3.1%	2.7%	2.9%	2.9%	2.9%

Table D-1c
SECWCD Financial Strategy and Sustainability Study
Operations and Maintenance Projections - Fry-Ark Project Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Fountain Valley Authority Contract													
1	Fountain Valley Authority contract payments	$ 5,355,898	$ 5,362,911	$ 5,360,000	$ 5,360,000	$ 1,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Operation and Maintenance Expenses													
2	Collection fees	122,062	128,716	-	-	-	-	-	-	-	-	-	-	-
3	Winter water storage	122,411	169,784	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600	117,600
4	Excess capacity contract	261,261	265,959	272,382	275,551	280,510	285,534	290,624	295,844	301,129	306,545	312,026	317,572	323,314
5	RRA fees	-	-	2,000	20,000	2,000	2,000	2,000	2,000	20,000	2,000	2,000	2,000	2,000
6	**Total Operation and Maintenance Expenses**	**$ 505,734**	**$ 564,459**	**$ 391,982**	**$ 413,151**	**$ 400,110**	**$ 405,134**	**$ 410,224**	**$ 415,444**	**$ 438,729**	**$ 426,145**	**$ 431,626**	**$ 437,172**	**$ 442,914**
	Operations Maintenance & Replacement (RAX)													
7	Estimation of annual O&M base	1,676,110	1,764,587	1,817,524	1,839,387	1,894,569	1,951,406	2,009,948	2,070,247	2,132,354	2,196,325	2,262,214	2,330,081	2,399,983
8	Estimation of annual RAX	637,658	(1,908,671)	4,742,544	5,757,189	8,046,597	3,906	785,623	805,602	824,512	842,291	858,878	874,207	888,213
9	**Total Operations Maintenance & Replacement (RAX)**	**$ 2,313,768**	**$ (144,084)**	**$ 6,560,068**	**$ 7,596,576**	**$ 9,941,166**	**$ 1,955,312**	**$ 2,795,571**	**$ 2,875,849**	**$ 2,956,866**	**$ 3,038,616**	**$ 3,121,092**	**$ 3,204,288**	**$ 3,288,196**

Table D-1d
SECWCD Financial Strategy and Sustainability Study
Debt Service Projections - Fry-Ark Project Subfund

Line No.	Description	Issue	Year Debt Incurred	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Principal															
1	Existing Debt	Bureau of Reclamation	1982	$ 4,683,638	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572	$ 1,467,572
2	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
3	**Total Principal**			**4,683,638**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**	**1,467,572**
	Interest															
4	Existing Debt	Bureau of Reclamation	1982	-	-	-	-	-	-	-	-	-	-	-	-	-
5	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
6	**Total Interest**			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Principal + Interest															
7	Existing Debt	Bureau of Reclamation	1982	4,683,638	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572	1,467,572
8	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
9	**Total Principal + Interest**			**$ 4,683,638**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**	**$ 1,467,572**

Table D-1e
SECWCD Financial Strategy and Sustainability Study
Capital Improvement Project Projections - Fry-Ark Project Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	Total
	CIP														
1	Pueblo dam interconnect	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	Recovery of storage: Pueblo Reservoir	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Recovery of storage: Turquoise Reservoir	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Recovery of storage: Twin Lakes Reservoir	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Fry-Ark system betterment (allocation yield)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Ruedi dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Boustead tunnel	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Pueblo dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Twin Lakes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Mount Elbert forbay	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Mount Elbert pipeline / half moon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Mount Elbert power plant	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	South side collection system	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	North side collection system	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Emergency/extraordinary maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	**Subtotal CIP**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
17	**Total CIP (Inflated)**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Scenario:
Base Case

Table D-2a
SECWCD Financial Strategy and Sustainability Study
Projection of Cash Flow - District Operations Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operating Revenue													
1	Operating Revenue	$ 2,502,544	$ 2,443,592	$ 2,445,057	$ 2,510,000	$ 2,577,000	$ 2,618,000	$ 2,659,000	$ 2,702,000	$ 2,745,000	$ 2,789,000	$ 2,834,000	$ 2,881,000	$ 2,928,000
2	Additional Revenue Required	-	-	-	-	-	-	-	-	-	-	-	-	-
3	**Total Operating Revenue**	**2,503,000**	**2,444,000**	**2,445,000**	**2,510,000**	**2,577,000**	**2,618,000**	**2,659,000**	**2,702,000**	**2,745,000**	**2,789,000**	**2,834,000**	**2,881,000**	**2,928,000**
	Operating Expenses													
4	Operation and Maintenance Expenses	2,138,294	2,140,648	2,565,572	2,666,000	2,770,000	2,825,000	2,882,000	2,940,000	2,998,000	3,058,000	3,119,000	3,182,000	3,245,000
5	Recurring Capital	54,167	139,221	690,000	570,000	453,000	354,000	406,000	441,000	410,000	446,000	415,000	452,000	420,000
6	**Total Operating Expenses**	**2,192,000**	**2,280,000**	**3,256,000**	**3,236,000**	**3,223,000**	**3,179,000**	**3,288,000**	**3,381,000**	**3,408,000**	**3,504,000**	**3,534,000**	**3,634,000**	**3,665,000**
7	**Net Operating Revenue**	**311,000**	**164,000**	**(811,000)**	**(726,000)**	**(646,000)**	**(561,000)**	**(629,000)**	**(679,000)**	**(663,000)**	**(715,000)**	**(700,000)**	**(753,000)**	**(737,000)**
	Debt Service													
8	Existing	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Proposed	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Total Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-
11	**Net Revenue After Debt Service**	**311,000**	**164,000**	**(811,000)**	**(726,000)**	**(646,000)**	**(561,000)**	**(629,000)**	**(679,000)**	**(663,000)**	**(715,000)**	**(700,000)**	**(753,000)**	**(737,000)**
	Other Cash Inflows/(Outflows)													
12	Non-Operating Income	5,354	(5,233)	-	-	-	-	-	-	-	-	-	-	-
13	Investment Revenue	72,035	126,451	120,212	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
14	Loan Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Capital Improvements Program	-	-	-	-	-	-	-	-	-	-	-	-	-
16	**Total Other Cash Inflows/(Outflows)**	**77,000**	**121,000**	**120,000**	**120,000**	**120,000**	**120,000**	**120,000**	**120,000**	**120,000**	**120,000**	**120,000**	**120,000**	**120,000**
17	Annual Surplus/(Deficiency)	388,000	285,000	(691,000)	(606,000)	(526,000)	(441,000)	(509,000)	(559,000)	(543,000)	(595,000)	(580,000)	(633,000)	(617,000)
18	Beginning Fund Balance		838,000	5,942,000	5,251,000	4,645,000	4,119,000	3,678,000	3,169,000	2,610,000	2,067,000	1,472,000	892,000	259,000
19	**Ending Fund Balance**	**$ 838,000**	**$ 5,942,000**	**$ 5,251,000**	**$ 4,645,000**	**$ 4,119,000**	**$ 3,678,000**	**$ 3,169,000**	**$ 2,610,000**	**$ 2,067,000**	**$ 1,472,000**	**$ 892,000**	**$ 259,000**	**$ (358,000)**

Table D-2b
SECWCD Financial Strategy and Sustainability Study
Revenue Projections - District Operations Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operating Revenues													
1	Tax revenue for operations													
2	Specific ownership taxes	$ 985,026	$ 984,131	$ 712,377	$ 712,377	$ 712,377	$ 712,377	$ 712,377	$ 712,377	$ 712,377	$ 712,377	$ 712,377	$ 712,377	$ 712,377
3	Operating tax revenue	276,419	290,266	296,632	305,531	314,697	324,138	333,862	343,878	354,194	364,820	375,765	387,037	398,649
4	Subtotal tax revenue for operations	1,261,445	1,274,397	1,009,009	1,017,908	1,027,074	1,036,515	1,046,239	1,056,255	1,066,571	1,077,197	1,088,142	1,099,414	1,111,026
5	Other operating revenue													
6	Xeriscape tour and material sales and other rentals	(1,431)	250	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
7	Enterprise administration reimbursement	1,242,530	1,168,945	1,435,048	1,490,910	1,549,246	1,580,326	1,612,030	1,644,371	1,677,361	1,711,013	1,745,341	1,780,359	1,816,079
8	Subtotal charges for services	1,241,099	1,169,195	1,436,048	1,491,910	1,550,246	1,581,326	1,613,030	1,645,371	1,678,361	1,712,013	1,746,341	1,781,359	1,817,079
9	**Subtotal Operating Revenues:**	**2,502,544**	**2,443,592**	**2,445,057**	**2,509,818**	**2,577,320**	**2,617,841**	**2,659,269**	**2,701,626**	**2,744,932**	**2,789,210**	**2,834,483**	**2,880,773**	**2,928,105**
	Non-Operating Revenues													
10	Investment revenue													
11	Interest income	7,658	34,806	42,301	42,301	42,301	42,301	42,301	42,301	42,301	42,301	42,301	42,301	42,301
12	Income to fair value adjustment	(37,236)	(5,143)	-	-	-	-	-	-	-	-	-	-	-
13	Interest on bonds	101,613	96,788	77,911	77,911	77,911	77,911	77,911	77,911	77,911	77,911	77,911	77,911	77,911
14	Subtotal investment revenue	72,035	126,451	120,212	120,212	120,212	120,212	120,212	120,212	120,212	120,212	120,212	120,212	120,212
15	Other													
16	Sundry	5,354	(5,233)	-	-	-	-	-	-	-	-	-	-	-
17	**Subtotal Non-Operating Revenues:**	**77,389**	**121,218**	**120,212**	**120,212**	**120,212**	**120,212**	**120,212**	**120,212**	**120,212**	**120,212**	**120,212**	**120,212**	**120,212**
18	**Total Revenue:**	**$ 2,579,933**	**$ 2,564,810**	**$ 2,565,269**	**$ 2,630,030**	**$ 2,697,532**	**$ 2,738,053**	**$ 2,779,481**	**$ 2,821,838**	**$ 2,865,144**	**$ 2,909,422**	**$ 2,954,695**	**$ 3,000,985**	**$ 3,048,317**
19	Percent Change (operating)				2.6%	2.7%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
20	Percent Change (total)				2.5%	2.6%	1.5%	1.5%	1.5%	1.5%	1.5%	1.6%	1.6%	1.6%

Table D-2c
SECWCD Financial Strategy and Sustainability Study
Operations and Maintenance Projections - District Operations Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operation and Maintenance Expenses													
1	Human resources													
2	Staff payroll	$ 919,842	$ 955,992	$ 1,104,751	$ 1,159,989	$ 1,217,988	$ 1,242,348	$ 1,267,195	$ 1,292,539	$ 1,318,389	$ 1,344,757	$ 1,371,652	$ 1,399,085	$ 1,427,067
3	Incentive/performance capacity	20,732	48,927	21,000	22,050	23,153	23,616	24,088	24,570	25,061	25,562	26,073	26,595	27,127
4	Directors' payroll	33,500	35,000	36,000	37,800	39,690	40,484	41,293	42,119	42,962	43,821	44,697	45,591	46,503
5	Payroll taxes	66,649	70,531	80,871	84,915	89,160	90,943	92,762	94,618	96,510	98,440	100,409	102,417	104,465
6	HSA contributions	34,600	34,600	34,600	36,330	38,147	38,909	39,688	40,481	41,291	42,117	42,959	43,818	44,695
7	401 retirement contribution	107,236	120,340	135,117	141,873	148,966	151,946	154,985	158,084	161,246	164,471	167,760	171,116	174,538
8	457 retirement contribution	45,638	47,506	53,363	56,031	58,833	60,009	61,210	62,434	63,682	64,956	66,255	67,580	68,932
9	Health insurance	113,845	107,089	120,142	126,149	132,457	135,106	137,808	140,564	143,375	146,243	149,168	152,151	155,194
10	Life insurance - staff and directors	7,778	7,828	8,820	9,261	9,724	9,919	10,117	10,319	10,526	10,736	10,951	11,170	11,393
11	Medical reimbursement	2,098	2,838	4,950	5,198	5,457	5,567	5,678	5,791	5,907	6,025	6,146	6,269	6,394
12	Long=term disability insurance	6,173	6,388	7,140	7,497	7,872	8,029	8,190	8,354	8,521	8,691	8,865	9,042	9,223
13	Employee assistance program	699	699	768	806	847	864	881	899	917	935	954	973	992
14	Dental insurance	7,947	8,366	9,324	9,790	10,280	10,485	10,695	10,909	11,127	11,350	11,577	11,808	12,044
15	Vision insurance	1,550	1,632	1,728	1,814	1,905	1,943	1,982	2,022	2,062	2,103	2,145	2,188	2,232
16	Worker's compensation insurance	3,795	1,898	3,661	3,844	4,036	4,117	4,199	4,283	4,369	4,456	4,545	4,636	4,729
17	Subtotal human resources	1,372,082	1,449,634	1,622,235	1,703,347	1,788,514	1,824,284	1,860,770	1,897,985	1,935,945	1,974,664	2,014,157	2,054,440	2,095,529
18	Headquarter operations													
19	Administration fees for human resources	4,228	4,255	4,500	4,590	4,682	4,775	4,871	4,968	5,068	5,169	5,272	5,378	5,485
20	Bank fees	2,200	1,108	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219
21	Board awards/gifts	665	165	1,036	1,057	1,078	1,099	1,121	1,144	1,167	1,190	1,214	1,238	1,263
22	Board coffee snacks	336	299	-	-	-	-	-	-	-	-	-	-	-
23	Board memberships/subscriptions	7,880	8,050	8,725	8,900	9,077	9,259	9,444	9,633	9,826	10,022	10,223	10,427	10,636
24	Board printing	245	225	536	547	558	569	580	592	604	616	628	641	653
25	Board room presentation equipment and maintenance	-	-	2,700	2,754	2,809	2,865	2,923	2,981	3,041	3,101	3,163	3,227	3,291
26	Board room accessories	630	245	310	316	323	329	336	342	349	356	363	370	378
27	Board/committee meals	4,786	4,585	7,978	8,138	8,300	8,466	8,636	8,808	8,985	9,164	9,347	9,534	9,725
28	Building heating/cooling	1,587	-	1,967	2,006	2,046	2,087	2,129	2,172	2,215	2,259	2,305	2,351	2,398
29	Building other/misc. maintenance	231	1,089	2,591	2,643	2,696	2,750	2,805	2,861	2,918	2,976	3,036	3,096	3,158
30	Building plumbing & electrical	986	781	2,331	2,378	2,425	2,474	2,523	2,574	2,625	2,678	2,731	2,786	2,841
31	Building tools & equipment	-	-	208	212	216	221	225	230	234	239	244	249	254
32	Computer - general contracts	19,282	23,082	28,686	29,260	29,845	30,442	31,051	31,672	32,305	32,951	33,610	34,282	34,968
33	Computer - supplies	807	549	788	804	820	836	853	870	887	905	923	942	961
34	Computer - hardware	13,627	11,477	11,604	11,836	12,073	12,314	12,561	12,812	13,068	13,329	13,596	13,868	14,145
35	Computer - software and licenses	10,254	12,831	14,250	14,535	14,826	15,122	15,425	15,733	16,048	16,369	16,696	17,030	17,371
36	Landscape maintenance - garden tools	272	121	-	-	-	-	-	-	-	-	-	-	-
37	Landscape - mower maintenance & fuel	266	29	-	-	-	-	-	-	-	-	-	-	-
38	Insurance - automobile	1,687	1,669	2,011	2,051	2,092	2,134	2,177	2,220	2,265	2,310	2,356	2,403	2,451
39	Insurance - excess liability	2,703	2,536	3,044	3,105	3,167	3,230	3,295	3,361	3,428	3,497	3,567	3,638	3,711
40	Insurance - general liability	12,591	11,679	13,713	13,987	14,267	14,552	14,843	15,140	15,443	15,752	16,067	16,388	16,716
41	Insurance - property & liability	6,215	6,121	6,528	6,659	6,792	6,928	7,066	7,207	7,352	7,499	7,649	7,802	7,958
42	Insurance - public official liability	1,391	1,381	1,554	1,585	1,617	1,649	1,682	1,716	1,750	1,785	1,821	1,857	1,894
43	Legal notices	690	2,115	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095
44	Maintenance - backflow testing	110	130	2,655	2,708	2,762	2,818	2,874	2,931	2,990	3,050	3,111	3,173	3,236
45	Maintenance - fire extinguisher	-	202	124	126	129	132	134	137	140	142	145	148	151
46	Maintenance - janitorial services	3,553	3,180	3,481	3,551	3,622	3,694	3,768	3,843	3,920	3,999	4,079	4,160	4,243
47	Maintenance - pest control	-	303	362	369	377	384	392	400	408	416	424	433	441
48	Maintenance - waste disposal	1,618	1,721	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438
49	Maintenance - security	4,867	1,200	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047
50	Maintenance - snow removal	293	353	1,054	1,075	1,097	1,119	1,141	1,164	1,187	1,211	1,235	1,260	1,285

51	Maintenance - window cleaning	840	930	1,140	1,163	1,186	1,210	1,234	1,259	1,284	1,310	1,336	1,362	1,390
52	Maintenance - blacktop	-	-	5,388	5,496	5,606	5,718	5,832	5,949	6,068	6,189	6,313	6,439	6,568
53	Office - equipment maintenance	3,100	1,459	1,839	1,876	1,913	1,952	1,991	2,030	2,071	2,112	2,155	2,198	2,242
54	Office - coffee/snacks	254	275	1,036	1,057	1,078	1,099	1,121	1,144	1,167	1,190	1,214	1,238	1,263
55	Office - copy machine color	5,760	7,182	6,500	6,630	6,763	6,898	7,036	7,177	7,320	7,466	7,616	7,768	7,923
56	Office - general/staff memberships	6,246	6,527	7,675	7,829	7,985	8,145	8,308	8,474	8,643	8,816	8,992	9,172	9,356
57	Awards & gifts - other	187	533	414	422	431	439	448	457	466	476	485	495	505
58	Office - printing	1,703	2,053	3,176	3,240	3,304	3,370	3,438	3,507	3,577	3,648	3,721	3,796	3,872
59	Office - publications & subscriptions	550	524	874	891	909	927	946	965	984	1,004	1,024	1,045	1,065
60	Phone - cell	4,981	4,522	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095
61	Phone - equipment maintenance	2,419	-	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047
62	Phone & internet	10,654	7,435	15,400	15,708	16,022	16,343	16,669	17,003	17,343	17,690	18,044	18,404	18,773
63	Postage & shipping	3,291	3,018	3,867	3,944	4,023	4,104	4,186	4,269	4,355	4,442	4,531	4,621	4,714
64	Staff awards and gifts	28	32	726	741	755	770	786	802	818	834	851	868	885
65	Supplies - janitorial	328	480	518	528	539	550	561	572	583	595	607	619	631
66	Supplies - office	2,332	2,241	2,609	2,661	2,714	2,769	2,824	2,881	2,938	2,997	3,057	3,118	3,180
67	Supplies - paper	901	974	1,036	1,057	1,078	1,099	1,121	1,144	1,167	1,190	1,214	1,238	1,263
68	Supplies - toner	910	735	1,572	1,603	1,636	1,668	1,702	1,736	1,770	1,806	1,842	1,879	1,916
69	Utilities	17,958	18,240	20,722	21,136	21,559	21,990	22,430	22,879	23,336	23,803	24,279	24,765	25,260
70	Utilities - airport fee	900	900	984	1,004	1,024	1,044	1,065	1,086	1,108	1,130	1,153	1,176	1,199
71	Vehicle repair and maintenance - 2014 RAV4	831	1,235	1,295	1,321	1,347	1,374	1,402	1,430	1,458	1,488	1,517	1,548	1,579
72	Vehicle repair and maintenance - 2010 Prius Gold	831	318	1,500	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828
73	Vehicle repair and maintenance - 2017 RAV4	-	405	1,295	1,321	1,347	1,374	1,402	1,430	1,458	1,488	1,517	1,548	1,579
74	Web contracts	1,050	480	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657
75	Web hosting	-	364	1,115	1,137	1,160	1,183	1,207	1,231	1,256	1,281	1,306	1,333	1,359
76	Landscape - aeration & weed control	141	-	-	-	-	-	-	-	-	-	-	-	-
77	Landscape - fertilizer & chemicals	309	578	2,559	2,610	2,662	2,716	2,770	2,825	2,882	2,939	2,998	3,058	3,119
78	Landscape maintenance contracts	4,341	3,250	7,296	7,442	7,591	7,743	7,897	8,055	8,216	8,381	8,548	8,719	8,894
79	Landscape - mulch, soil amendments	420	-	-	-	-	-	-	-	-	-	-	-	-
80	Xeriscape - plants and other	723	497	-	-	-	-	-	-	-	-	-	-	-
81	Landscape - sprinkler system repair & maintenance	1,933	798	-	-	-	-	-	-	-	-	-	-	-
82	Contingency - operating	-	5,147	50,000	51,000	52,020	53,060	54,122	55,204	56,308	57,434	58,583	59,755	60,950
83	Subtotal headquarter operations	177,921	172,613	284,272	289,957	295,757	301,672	307,705	313,859	320,136	326,539	333,070	339,731	346,526
84	Meetings and travel													
85	Directors - other travel (tip, fax, parking, telephone, etc.)	349	355	829	846	862	880	897	915	934	952	971	991	1,011
86	Directors - other transportation (taxi, shuttle, rental)	83	208	-	-	-	-	-	-	-	-	-	-	-
87	Directors airfare	3,586	2,158	4,766	4,861	4,959	5,058	5,159	5,262	5,367	5,475	5,584	5,696	5,810
88	Directors hotels	5,948	7,390	9,799	9,995	10,195	10,399	10,607	10,819	11,035	11,256	11,481	11,711	11,945
89	Directors meals	506	715	2,300	2,346	2,393	2,441	2,490	2,539	2,590	2,642	2,695	2,749	2,804
90	Directors meeting registrations	6,370	6,605	10,350	10,557	10,768	10,984	11,203	11,427	11,656	11,889	12,127	12,369	12,617
91	Directors mileage reimbursement	11,075	10,158	13,470	13,739	14,014	14,294	14,580	14,872	15,169	15,473	15,782	16,098	16,420
92	Executive - airfare	2,755	2,268	3,800	3,876	3,954	4,033	4,113	4,196	4,279	4,365	4,452	4,541	4,632
93	Executive - district vehicle gas	722	838	1,036	1,057	1,078	1,099	1,121	1,144	1,167	1,190	1,214	1,238	1,263
94	Executive - hotels	3,949	3,885	5,181	5,285	5,390	5,498	5,608	5,720	5,835	5,951	6,070	6,192	6,316
95	Executive - meals	744	842	1,036	1,057	1,078	1,099	1,121	1,144	1,167	1,190	1,214	1,238	1,263
96	Executive meeting registrations	3,234	3,109	3,350	3,417	3,485	3,555	3,626	3,699	3,773	3,848	3,925	4,004	4,084
97	Executive - other travel expense	503	321	850	867	884	902	920	938	957	976	996	1,016	1,036
98	Meeting expense	313	309	1,519	1,549	1,580	1,612	1,644	1,677	1,711	1,745	1,780	1,815	1,852
99	Meeting meals - non staff member	313	139	634	647	660	673	686	700	714	728	743	758	773
100	Staff business - airfare	4,130	6,628	13,300	13,566	13,837	14,114	14,396	14,684	14,978	15,278	15,583	15,895	16,213
101	Staff business - district vehicle gas	1,802	2,040	4,845	4,942	5,041	5,142	5,244	5,349	5,456	5,565	5,677	5,790	5,906
102	Staff business - hotels	8,786	12,021	18,230	18,595	18,966	19,346	19,733	20,127	20,530	20,941	21,359	21,787	22,222
103	Staff business - meals	1,916	2,630	4,390	4,478	4,567	4,659	4,752	4,847	4,944	5,043	5,144	5,246	5,351
104	Staff business - meeting registrations	11,457	8,533	15,450	15,759	16,074	16,396	16,724	17,058	17,399	17,747	18,102	18,464	18,833
105	Staff business - other travel	1,504	1,921	1,320	1,346	1,373	1,401	1,429	1,457	1,487	1,516	1,547	1,578	1,609
106	Staff certification - airfare	-	250	-	-	-	-	-	-	-	-	-	-	-
107	Staff certification - hotels	1,335	495	-	-	-	-	-	-	-	-	-	-	-
108	Staff certification - meals	132	50	-	-	-	-	-	-	-	-	-	-	-

109	Staff certification - other expense	60	89	-	-	-	-	-	-	-	-	-	-	-	-
110	Staff certification - registrations	1,174	1,210	1,750	1,785	1,821	1,857	1,894	1,932	1,971	2,010	2,050	2,091	2,133	
111	Staff education - hotels	-	-	-	-	-	-	-	-	-	-	-	-	-	-
112	Staff education - meals	-	48	-	-	-	-	-	-	-	-	-	-	-	-
113	Staff education - other travel	30	-	-	-	-	-	-	-	-	-	-	-	-	-
114	Staff education (general skills)	11,073	2,661	23,104	23,566	24,037	24,518	25,009	25,509	26,019	26,539	27,070	27,611	28,164	
115	Subtotal meetings and travel	83,849	77,876	141,309	144,135	147,018	149,958	152,957	156,017	159,137	162,320	165,566	168,877	172,255	
116	Outside and professional services														
117	Annual audit	35,285	43,618	50,000	51,000	52,020	53,060	54,122	55,204	56,308	57,434	58,583	59,755	60,950	
118	Consultant HR Breadbasket	-	8,285	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	
119	Consulting/lobbying services - federal	102,569	86,327	33,326	33,993	34,672	35,366	36,073	36,795	37,530	38,281	39,047	39,828	40,624	
120	Colorado River Services	-	-	22,000	22,440	22,889	23,347	23,814	24,290	24,776	25,271	25,777	26,292	26,818	
121	Legal representation	361,585	248,278	330,000	336,600	343,332	350,199	357,203	364,347	371,634	379,066	386,648	394,381	402,268	
122	Legal expense	-	5,273	22,000	22,440	22,889	23,347	23,814	24,290	24,776	25,271	25,777	26,292	26,818	
123	Water policy management consultants	-	8,798	25,000	25,500	26,010	26,530	27,061	27,602	28,154	28,717	29,291	29,877	30,475	
124	Engineering outside contracts	-	-	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657	
125	Subtotal outside and professional services	499,439	400,579	495,326	505,233	515,337	525,644	536,157	546,880	557,818	568,974	580,353	591,960	603,800	
126	Water conservation and education														
127	Xeriscape garden tours	700	-	700	714	728	743	758	773	788	804	820	837	853	
128	Tours & anniversary events	-	34,037	12,000	12,240	12,485	12,734	12,989	13,249	13,514	13,784	14,060	14,341	14,628	
129	Sponsorships and exhibits	4,303	5,909	6,830	6,967	7,106	7,248	7,393	7,541	7,692	7,846	8,002	8,162	8,326	
130	Xeriscape ed programs & publications	-	-	2,900	2,958	3,017	3,078	3,139	3,202	3,266	3,331	3,398	3,466	3,535	
131	Subtotal water conservation and education	5,003	39,946	22,430	22,879	23,336	23,803	24,279	24,765	25,260	25,765	26,280	26,806	27,342	
132	**Total Operation and Maintenance Expenses**	**$ 2,138,294**	**$ 2,140,648**	**$ 2,565,572**	**$ 2,665,550**	**$ 2,769,962**	**$ 2,825,361**	**$ 2,881,868**	**$ 2,939,506**	**$ 2,998,296**	**$ 3,058,262**	**$ 3,119,427**	**$ 3,181,816**	**$ 3,245,452**	
	Recurring Capital														
133	Building Improvements (In & Outdoor)	-	-	10,000	50,000	51,000	52,020	53,060	54,122	55,204	56,308	57,434	58,583	59,755	
134	Technology Improvements	-	-	60,000	50,000	51,000	52,020	53,060	54,122	55,204	56,308	57,434	58,583	59,755	
135	Fleet Replacement	-	-	30,000	-	30,600	-	-	32,473	-	33,785	-	35,150	-	
136	Project and Programs	54,167	139,221	590,000	470,000	320,000	250,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	
137	**Total Recurring Capital**	**$ 54,167**	**$ 139,221**	**$ 690,000**	**$ 570,000**	**$ 452,600**	**$ 354,040**	**$ 406,121**	**$ 440,716**	**$ 410,408**	**$ 446,401**	**$ 414,869**	**$ 452,316**	**$ 419,509**	

Table D-2d
SECWCD Financial Strategy and Sustainability Study
Debt Service Projections - District Operations Subfund

Line No.	Description	Issue	Year Debt Incurred	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Principal															
1	Existing Debt	Bureau of Reclamation	1982	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
3	**Total Principal**			-	-	-	-	-	-	-	-	-	-	-	-	-
	Interest															
4	Existing Debt	Bureau of Reclamation	1982	-	-	-	-	-	-	-	-	-	-	-	-	-
5	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
6	**Total Interest**			-	-	-	-	-	-	-	-	-	-	-	-	-
	Principal + Interest															
7	Existing Debt	Bureau of Reclamation	1982	-	-	-	-	-	-	-	-	-	-	-	-	-
8	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
9	**Total Principal + Interest**			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Table D-2e
SECWCD Financial Strategy and Sustainability Study
Capital Improvement Project Projections - District Operations Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	Total
	CIP														
1	TBD #1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	TBD #2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	TBD #3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	TBD #4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	**Subtotal CIP**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
6	**Total CIP (Inflated)**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Scenario:
Base Case

Table D-3a
SECWCD Financial Strategy and Sustainability Study
Projection of Cash Flow - Water Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operating Revenue													
1	Operating Revenue	$ 1,471,892	$ 1,293,500	$ 1,548,733	$ 1,549,000	$ 1,549,000	$ 1,549,000	$ 1,549,000	$ 1,549,000	$ 1,549,000	$ 1,549,000	$ 1,549,000	$ 1,549,000	$ 1,549,000
2	Additional Revenue Required	-	-	-	-	-	-	-	-	-	-	-	-	-
3	**Total Operating Revenue**	**1,472,000**	**1,294,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**	**1,549,000**
	Operating Expenses													
4	Operation and Maintenance Expenses	1,452,169	1,479,607	2,052,855	2,117,000	2,184,000	2,224,000	2,265,000	2,308,000	2,351,000	2,395,000	2,439,000	2,485,000	2,532,000
5	Recurring Capital	-	-	25,000	385,000	260,000	260,000	325,000	100,000	100,000	100,000	225,000	100,000	100,000
6	**Total Operating Expenses**	**1,452,000**	**1,480,000**	**2,078,000**	**2,502,000**	**2,444,000**	**2,484,000**	**2,590,000**	**2,408,000**	**2,451,000**	**2,495,000**	**2,664,000**	**2,585,000**	**2,632,000**
7	**Net Operating Revenue**	**20,000**	**(186,000)**	**(529,000)**	**(953,000)**	**(895,000)**	**(935,000)**	**(1,041,000)**	**(859,000)**	**(902,000)**	**(946,000)**	**(1,115,000)**	**(1,036,000)**	**(1,083,000)**
	Debt Service													
8	Existing	60,000	60,000	60,000	60,000	60,000	60,000	60,000	10,820	-	-	-	-	-
9	Proposed	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Total Debt Service	60,000	60,000	60,000	60,000	60,000	60,000	60,000	10,820	-	-	-	-	-
11	**Net Revenue After Debt Service**	**(40,000)**	**(246,000)**	**(589,000)**	**(1,013,000)**	**(955,000)**	**(995,000)**	**(1,101,000)**	**(870,000)**	**(902,000)**	**(946,000)**	**(1,115,000)**	**(1,036,000)**	**(1,083,000)**
	Other Cash Inflows/(Outflows)													
12	Non-Operating Income	56,687	172,844	186,728	187,000	187,000	187,000	187,000	187,000	187,000	187,000	187,000	187,000	187,000
13	Investment Revenue	80,103	169,570	194,780	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000	195,000
14	Loan Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Capital Improvements Program	-	-	(7,500)	(1,071,000)	(208,000)	(212,000)	(216,000)	(442,000)	(1,351,000)	(230,000)	(234,000)	(239,000)	(1,219,000)
16	**Total Other Cash Inflows/(Outflows)**	**137,000**	**342,000**	**374,000**	**(689,000)**	**174,000**	**170,000**	**166,000**	**(60,000)**	**(969,000)**	**152,000**	**148,000**	**143,000**	**(837,000)**
17	Annual Surplus/(Deficiency)	97,000	96,000	(215,000)	(1,702,000)	(781,000)	(825,000)	(935,000)	(930,000)	(1,871,000)	(794,000)	(967,000)	(893,000)	(1,920,000)
18	Beginning Fund Balance		8,582,000	8,639,000	8,424,000	6,722,000	5,941,000	5,116,000	4,181,000	3,251,000	1,380,000	586,000	(381,000)	(1,274,000)
19	**Ending Fund Balance**	**$ 8,582,000**	**$ 8,639,000**	**$ 8,424,000**	**$ 6,722,000**	**$ 5,941,000**	**$ 5,116,000**	**$ 4,181,000**	**$ 3,251,000**	**$ 1,380,000**	**$ 586,000**	**$ (381,000)**	**$ (1,274,000)**	**$ (3,194,000)**

Table D-3b
SECWCD Financial Strategy and Sustainability Study
Revenue Projections - Water Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operating Revenues													
1	Water sales and surcharges													
2	Return flow water sales	$ 80,310	$ 44,883	$ 44,820	$ 44,820	$ 44,820	$ 44,820	$ 44,820	$ 44,820	$ 44,820	$ 44,820	$ 44,820	$ 44,820	$ 44,820
3	Well augmentation surcharge	10,020	5,658	12,917	12,917	12,917	12,917	12,917	12,917	12,917	12,917	12,917	12,917	12,917
4	Surcharge revenue	653,902	614,473	578,649	578,649	578,649	578,649	578,649	578,649	578,649	578,649	578,649	578,649	578,649
5	Aurora IGA - if & when WAE fee	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
6	Project water sales	324,551	193,193	294,406	294,406	294,406	294,406	294,406	294,406	294,406	294,406	294,406	294,406	294,406
7	Subtotal water sales and surcharges	1,168,783	958,207	1,030,792	1,030,792	1,030,792	1,030,792	1,030,792	1,030,792	1,030,792	1,030,792	1,030,792	1,030,792	1,030,792
8	Aurora IGA - administration fee	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
9	Partnership contributions	-	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000
10	Participant payments	253,109	175,293	357,941	357,941	357,941	357,941	357,941	357,941	357,941	357,941	357,941	357,941	357,941
11	**Subtotal Operating Revenues:**	**1,471,892**	**1,293,500**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**	**1,548,733**
	Non-Operating Revenues													
12	Investment revenue													
13	Interest income	-	-	56,336	56,336	56,336	56,336	56,336	56,336	56,336	56,336	56,336	56,336	56,336
14	Income to fair market adjustment	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Interest on bonds	80,103	169,570	138,444	138,444	138,444	138,444	138,444	138,444	138,444	138,444	138,444	138,444	138,444
16	Subtotal investment revenue	80,103	169,570	194,780	194,780	194,780	194,780	194,780	194,780	194,780	194,780	194,780	194,780	194,780
17	Federal appropriations	56,687	172,844	186,728	186,728	186,728	186,728	186,728	186,728	186,728	186,728	186,728	186,728	186,728
18	**Subtotal Non-Operating Revenues:**	**136,790**	**342,414**	**381,508**	**381,508**	**381,508**	**381,508**	**381,508**	**381,508**	**381,508**	**381,508**	**381,508**	**381,508**	**381,508**
19	**Total Revenue:**	**$ 1,608,682**	**$ 1,635,914**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**	**$ 1,930,241**
20	Percent Change (operating)				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
21	Percent Change (total)				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table D-3c
SECWCD Financial Strategy and Sustainability Study
Operations and Maintenance Projections - Water Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operation and Maintenance Expenses													
1	Headquarter operations													
2	Board/committee meals	$ -	$ -	$ 104	$ 106	$ 108	$ 110	$ 113	$ 115	$ 117	$ 119	$ 122	$ 124	$ 127
3	Supplies - office	-	22	-	-	-	-	-	-	-	-	-	-	-
4	Subtotal headquarter operations	-	22	104	106	108	110	113	115	117	119	122	124	127
5	Meetings and travel													
6	Directors airfare	-	-	7,460	7,609	7,761	7,917	8,075	8,236	8,401	8,569	8,741	8,915	9,094
7	Directors hotels	-	-	9,889	10,087	10,289	10,494	10,704	10,918	11,137	11,359	11,587	11,818	12,055
8	Directors meals	-	-	2,487	2,537	2,587	2,639	2,692	2,746	2,801	2,857	2,914	2,972	3,032
9	Directors mileage reimbursement	-	-	1,451	1,480	1,510	1,540	1,571	1,602	1,634	1,667	1,700	1,734	1,769
10	Executive - airfare	1,512	-	4,352	4,439	4,528	4,618	4,711	4,805	4,901	4,999	5,099	5,201	5,305
11	Executive - hotels	-	-	5,491	5,601	5,713	5,827	5,944	6,063	6,184	6,307	6,434	6,562	6,693
12	Executive - meals	-	-	1,657	1,690	1,724	1,758	1,794	1,829	1,866	1,903	1,941	1,980	2,020
13	Executive - other travel expense	-	-	1,553	1,584	1,616	1,648	1,681	1,715	1,749	1,784	1,820	1,856	1,893
14	Meeting expense	-	-	1,140	1,163	1,186	1,210	1,234	1,259	1,284	1,310	1,336	1,362	1,390
15	Meeting meals - non staff member	-	-	1,140	1,163	1,186	1,210	1,234	1,259	1,284	1,310	1,336	1,362	1,390
16	Staff business and training - district vehicle gas	-	36	5,698	5,812	5,928	6,047	6,168	6,291	6,417	6,545	6,676	6,810	6,946
17	Staff business and training - hotels	-	-	2,176	2,220	2,264	2,309	2,355	2,402	2,451	2,500	2,550	2,601	2,653
18	Staff business and training - meals	-	13	828	845	861	879	896	914	932	951	970	990	1,009
19	Staff business and training - other travel	-	-	208	212	216	221	225	230	234	239	244	249	254
20	Subtotal meetings and travel	1,512	49	45,530	46,441	47,369	48,317	49,283	50,269	51,274	52,300	53,346	54,413	55,501
21	Outside and professional services													
22	Consultant/lobbying services - federal	325,496	83,432	77,274	78,819	80,396	82,004	83,644	85,317	87,023	88,764	90,539	92,350	94,197
23	Colorado River Services	-	35,428	60,300	61,506	62,736	63,991	65,271	66,576	67,908	69,266	70,651	72,064	73,505
24	Legal representation	-	-	12,589	12,841	13,098	13,360	13,627	13,899	14,177	14,461	14,750	15,045	15,346
25	Water policy management consultants	-	22,648	58,403	59,571	60,762	61,978	63,217	64,482	65,771	67,087	68,428	69,797	71,193
26	Engineering outside contracts	-	4,143	35,904	36,622	37,355	38,102	38,864	39,641	40,434	41,242	42,067	42,909	43,767
27	Transit loss study expenses	-	1,820	2,880	2,938	2,996	3,056	3,117	3,180	3,243	3,308	3,374	3,442	3,511
28	Research project support	-	7,000	27,904	28,462	29,031	29,612	30,204	30,808	31,424	32,053	32,694	33,348	34,015
29	Project studies	-	40,000	-	-	-	-	-	-	-	-	-	-	-
30	Subtotal outside and professional services	325,496	194,471	275,254	280,759	286,374	292,102	297,944	303,903	309,981	316,180	322,504	328,954	335,533
31	Personnel and overhead													
32	Office overhead	480,598	370,736	490,435	500,244	510,249	520,454	530,863	541,480	552,309	563,356	574,623	586,115	597,838
33	Project directors allocation	-	-	24,120	24,602	25,094	25,596	26,108	26,630	27,163	27,706	28,260	28,826	29,402
34	Project personnel	590,986	712,211	869,316	912,782	958,421	977,589	997,141	1,017,084	1,037,426	1,058,174	1,079,338	1,100,924	1,122,943
35	Subtotal personnel and overhead	1,071,584	1,082,947	1,383,871	1,437,628	1,493,764	1,523,639	1,554,112	1,585,194	1,616,898	1,649,236	1,682,221	1,715,865	1,750,183
36	Partnerships													
37	Safety of dams - Pueblo	-	-	-	-	-	-	-	-	-	-	-	-	-
38	U.S.G.S. co-op programs	53,577	67,118	191,274	195,099	199,001	202,981	207,041	211,182	215,406	219,714	224,108	228,590	233,162
39	RRPG project costs	-	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000
40	Subtotal partnerships	53,577	202,118	326,274	330,099	334,001	337,981	342,041	346,182	350,406	354,714	359,108	363,590	368,162
41	Other payments													
42	AVC project contributions	-	-	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
43	Reimbursement to other project/fund	-	-	1,822	1,858	1,896	1,934	1,972	2,012	2,052	2,093	2,135	2,177	2,221
44	Subtotal other payments	-	-	21,822	21,858	21,896	21,934	21,972	22,012	22,052	22,093	22,135	22,177	22,221
45	**Total Operation and Maintenance Expenses**	**$ 1,452,169**	**$ 1,479,607**	**$ 2,052,855**	**$ 2,116,892**	**$ 2,183,513**	**$ 2,224,083**	**$ 2,265,465**	**$ 2,307,674**	**$ 2,350,728**	**$ 2,394,642**	**$ 2,439,435**	**$ 2,485,124**	**$ 2,531,726**
	Recurring Capital													
46	Reimbursement on district upfront capital expense	-	-	-	250,000	250,000	250,000	200,000	100,000	100,000	100,000	100,000	100,000	100,000
47	Project and Programs	-	-	25,000	135,000	10,000	10,000	125,000	-	-	-	125,000	-	-
48	**Total Recurring Capital**	**$ -**	**$ -**	**$ 25,000**	**$ 385,000**	**$ 260,000**	**$ 260,000**	**$ 325,000**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 225,000**	**$ 100,000**	**$ 100,000**

Table D-3d
SECWCD Financial Strategy and Sustainability Study
Debt Service Projections - Water Subfund

Line No.	Description	Issue	Year Debt Incurred	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Principal															
1	Existing Debt	Bureau of Reclamation	1998	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 60,000	$ 10,820	$ -	$ -	$ -	$ -	$ -
2	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
3	**Total Principal**			**60,000**	**60,000**	**60,000**	**60,000**	**60,000**	**60,000**	**60,000**	**10,820**	**-**	**-**	**-**	**-**	**-**
	Interest															
4	Existing Debt	Bureau of Reclamation	1998	-	-	-	-	-	-	-	-	-	-	-	-	-
5	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
6	**Total Interest**			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	Principal + Interest															
7	Existing Debt	Bureau of Reclamation	1998	60,000	60,000	60,000	60,000	60,000	60,000	60,000	10,820	-	-	-	-	-
8	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
9	**Total Principal + Interest**			**$ 60,000**	**$ 60,000**	**$ 60,000**	**$ 60,000**	**$ 60,000**	**$ 60,000**	**$ 60,000**	**$ 10,820**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Table D-3e
SECWCD Financial Strategy and Sustainability Study
Capital Improvement Project Projections - Water Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	Total
	CIP														
1	Restoration of Yield - Storage Facility #1	$ -	$ -	$ -	$ 900,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 900,000
2	Restoration of Yield - Storage Facility #2	-	-	7,500	150,000	200,000	200,000	200,000	200,000	1,000,000	-	-	-	-	1,957,500
3	Restoration of Yield - Storage Facility #3	-	-	-	-	-	-	-	200,000	200,000	200,000	200,000	200,000	1,000,000	2,000,000
4	Restoration of Yield - Storage Facility #4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Development and Improvement TBD #1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Development and Improvement TBD #2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	**Subtotal CIP**	**-**	**-**	**7,500**	**1,050,000**	**200,000**	**200,000**	**200,000**	**400,000**	**1,200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**4,857,500**
8	**Total CIP (Inflated)**	**$ -**	**$ -**	**$ 7,500**	**$ 1,071,000**	**$ 208,080**	**$ 212,242**	**$ 216,486**	**$ 441,632**	**$ 1,351,395**	**$ 229,737**	**$ 234,332**	**$ 239,019**	**$ 1,218,994**	**$ 5,430,417**

Scenario:
Base Case

Table D-4a
SECWCD Financial Strategy and Sustainability Study
Projection of Cash Flow - Hydroelectric Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operating Revenue													
1	Operating Revenue	$ -	$ -	$ 961,876	$ 1,283,000	$ 1,307,000	$ 1,262,000	$ 1,288,000	$ 1,314,000	$ 1,341,000	$ 1,369,000	$ 1,397,000	$ 1,416,000	$ 1,440,000
2	Additional Revenue Required	-	-	-	-	-	-	-	-	-	-	-	-	-
3	**Total Operating Revenue**	**-**	**-**	**962,000**	**1,283,000**	**1,307,000**	**1,262,000**	**1,288,000**	**1,314,000**	**1,341,000**	**1,369,000**	**1,397,000**	**1,416,000**	**1,440,000**
4	**Total Operating Expenses**	**389,000**	**292,000**	**452,000**	**487,000**	**501,000**	**514,000**	**528,000**	**542,000**	**557,000**	**572,000**	**588,000**	**604,000**	**620,000**
5	**Net Operating Revenue**	**(389,000)**	**(292,000)**	**510,000**	**796,000**	**806,000**	**748,000**	**760,000**	**772,000**	**784,000**	**797,000**	**809,000**	**812,000**	**820,000**
	Debt Service													
6	Existing	-	100,842	347,844	347,844	776,560	776,560	906,711	906,711	906,711	906,711	906,711	906,711	906,711
7	Proposed	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Total Debt Service	-	100,842	347,844	347,844	776,560	776,560	906,711	906,711	906,711	906,711	906,711	906,711	906,711
9	**Net Revenue After Debt Service**	**(389,000)**	**(393,000)**	**162,000**	**448,000**	**29,000**	**(29,000)**	**(147,000)**	**(135,000)**	**(123,000)**	**(110,000)**	**(98,000)**	**(95,000)**	**(87,000)**
	Other Cash Inflows/(Outflows)													
10	Enterprise Loan Repayment	-	-	-	-	-	-	130,151	130,151	130,151	130,151	130,151	130,151	130,151
11	Non-Operating Income	-	73,500	-	-	-	-	-	-	-	-	-	-	-
12	Investment Revenue	-	166	-	-	-	-	-	-	-	-	-	-	-
13	Loan Proceeds	6,054,144	9,878,096	1,459,960	-	-	-	-	-	-	-	-	-	-
14	Capital Improvements Program	(7,577,659)	(9,688,860)	(1,755,824)	-	-	-	-	-	-	-	-	-	-
15	**Total Other Cash Inflows/(Outflows)**	**(1,524,000)**	**263,000**	**(296,000)**	**-**	**-**	**-**	**130,000**	**130,000**	**130,000**	**130,000**	**130,000**	**130,000**	**130,000**
16	Annual Surplus/(Deficiency)	(1,913,000)	(130,000)	(134,000)	448,000	29,000	(29,000)	(17,000)	(5,000)	7,000	20,000	32,000	35,000	43,000
17	Beginning Fund Balance		(2,439,000)	(2,780,000)	(2,914,000)	(2,466,000)	(2,437,000)	(2,466,000)	(2,483,000)	(2,488,000)	(2,481,000)	(2,461,000)	(2,429,000)	(2,394,000)
18	**Ending Fund Balance**	**$ (2,439,000)**	**$ (2,780,000)**	**$ (2,914,000)**	**$ (2,466,000)**	**$ (2,437,000)**	**$ (2,466,000)**	**$ (2,483,000)**	**$ (2,488,000)**	**$ (2,481,000)**	**$ (2,461,000)**	**$ (2,429,000)**	**$ (2,394,000)**	**$ (2,351,000)**

Table D-4b
SECWCD Financial Strategy and Sustainability Study
Revenue Projections - Hydroelectric Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operating Revenues													
1	Hydroelectric generation revenue													
2	Hydroelectric generation revenue - CS-U	$ -	$ -	$ 445,313	$ 593,750	$ 607,941	$ 622,470	$ 637,347	$ 652,580	$ 668,177	$ 684,146	$ 700,497	$ -	$ -
3	Hydroelectric generation revenue - Fountain	-	-	464,063	618,750	629,269	639,966	650,846	661,910	673,163	684,606	696,245	1,416,162	1,440,236
4	Energy distribution revenue	-	-	52,500	70,000	70,000	-	-	-	-	-	-	-	-
5	**Subtotal Operating Revenues:**	-	-	961,876	**1,282,500**	**1,307,209**	**1,262,437**	**1,288,193**	**1,314,490**	**1,341,339**	**1,368,752**	**1,396,742**	**1,416,162**	**1,440,236**
	Non-Operating Revenues													
6	Miscellaneous revenue	-	73,500	-	-	-	-	-	-	-	-	-	-	-
7	Interest income	-	166	-	-	-	-	-	-	-	-	-	-	-
8	Hydroelectric power loan	6,054,144	9,878,096	1,459,960	-	-	-	-	-	-	-	-	-	-
9	**Subtotal Non-Operating Revenues:**	6,054,144	9,951,762	1,459,960	-	-	-	-	-	-	-	-	-	-
10	**Total Revenue:**	$ 6,054,144	$ 9,951,762	$ 2,421,836	$ 1,282,500	$ 1,307,209	$ 1,262,437	$ 1,288,193	$ 1,314,490	$ 1,341,339	$ 1,368,752	$ 1,396,742	$ 1,416,162	$ 1,440,236
11	Percent Change (operating)				33.3%	1.9%	-3.4%	2.0%	2.0%	2.0%	2.0%	2.0%	1.4%	1.7%
12	Percent Change (total)				-47.0%	1.9%	-3.4%	2.0%	2.0%	2.0%	2.0%	2.0%	1.4%	1.7%

Table D-4c
SECWCD Financial Strategy and Sustainability Study
Operations and Maintenance Projections - Hydroelectric Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Operation and Maintenance Expenses													
1	Bank fees	$ 31	$ 5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2	Meetings and travel													
3	Directors airfare	-	-	600	615	630	646	662	679	696	713	731	749	768
4	Executive - airfare	1,058	767	600	615	630	646	662	679	696	713	731	749	768
5	Executive - hotels	-	123	1,000	1,025	1,051	1,077	1,104	1,131	1,160	1,189	1,218	1,249	1,280
6	Executive - meals	-	14	500	513	525	538	552	566	580	594	609	624	640
7	Executive - other travel expense	-	50	-	-	-	-	-	-	-	-	-	-	-
8	Meeting expense	-	-	400	410	420	431	442	453	464	475	487	500	512
9	Meeting meals - non staff member	-	15	200	205	210	215	221	226	232	238	244	250	256
10	Staff business and training - airfare	-	767	800	820	841	862	883	905	928	951	975	999	1,024
11	Staff business and training - district vehicle gas	-	590	250	256	263	269	276	283	290	297	305	312	320
12	Staff business and training - hotels	-	914	600	615	630	646	662	679	696	713	731	749	768
13	Staff business and training - meals	-	64	100	103	105	108	110	113	116	119	122	125	128
14	Staff business and training - other travel	-	12	300	308	315	323	331	339	348	357	366	375	384
15	Subtotal meetings and travel	1,058	3,316	5,350	5,484	5,621	5,761	5,905	6,053	6,204	6,359	6,518	6,681	6,848
16	Outside and professional services													
17	Legal representation	-	-	10,000	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092	6,244
18	Water policy management consultants	-	-	10,000	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092	6,244
19	Engineering outside contracts	151,247	124,851	60,000	30,000	30,750	31,519	32,307	33,114	33,942	34,791	35,661	36,552	37,466
20	Subtotal outside and professional services	151,247	124,851	80,000	40,000	41,000	42,025	43,076	44,153	45,256	46,388	47,547	48,736	49,955
21	Tours & anniversary events	-	-	5,000	-	-	-	-	-	-	-	-	-	-
22	Personnel and overhead													
23	Office overhead	106,949	42,900	18,138	18,591	19,056	19,533	20,021	20,521	21,035	21,560	22,099	22,652	23,218
24	Project personnel	96,777	43,098	33,039	34,691	36,425	37,154	37,897	38,655	39,428	40,217	41,021	41,841	42,678
25	Subtotal personnel and overhead	203,726	85,998	51,177	53,282	55,482	56,687	57,918	59,177	60,463	61,777	63,120	64,493	65,896
26	Other payments	32,779	77,369	-	-	-	-	-	-	-	-	-	-	-
27	Annual project expense													
28	Energy transmission	-	-	105,000	140,000	142,800	145,656	148,569	151,541	154,571	157,663	160,816	164,032	167,313
29	Energy distribution	-	-	14,250	25,000	25,500	26,010	26,530	27,061	27,602	28,154	28,717	29,291	29,877
30	Operations & maintenance operator	-	-	15,000	24,600	25,215	25,845	26,492	27,154	27,833	28,528	29,242	29,973	30,722
31	Operations & maintenance lubrication & routine	-	-	30,000	30,750	31,519	32,307	33,114	33,942	34,791	35,661	36,552	37,466	38,403
32	Operations & maintenance (USBR & OM&R)	-	-	3,500	3,640	3,786	3,937	4,095	4,258	4,429	4,606	4,790	4,982	5,181
33	Operations & maintenance (insurance)	-	-	46,000	47,840	49,754	51,744	53,813	55,966	58,205	60,533	62,954	65,472	68,091
34	Lease of power privilege	-	-	57,000	75,000	78,000	81,120	84,365	87,739	91,249	94,899	98,695	102,643	106,748
35	Scheduling & firming	-	-	40,000	41,000	42,025	43,076	44,153	45,256	46,388	47,547	48,736	49,955	51,203
36	Subtotal annual project expense	-	-	310,750	387,830	398,598	409,694	421,131	432,917	445,067	457,591	470,502	483,814	497,539
37	**Total Operation and Maintenance Expenses**	**$ 388,841**	**$ 291,539**	**$ 452,277**	**$ 486,596**	**$ 500,701**	**$ 514,168**	**$ 528,030**	**$ 542,299**	**$ 556,990**	**$ 572,115**	**$ 587,688**	**$ 603,724**	**$ 620,238**

Table D-4d
SECWCD Financial Strategy and Sustainability Study
Debt Service Projections - Hydroelectric Subfund

Line No.	Description	Issue	Year Debt Incurred	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
	Principal															
1	Existing Debt	CWCB	2017	$ -	$ -	$ -	$ -	$ 428,716	$ 437,291	$ 446,037	$ 454,957	$ 464,056	$ 473,338	$ 482,804	$ 492,460	$ 502,310
2	Existing Debt	Enterprise	2017	-	-	-	-	-	-	71,853	73,290	74,755	76,250	77,775	79,331	80,918
3	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
4	**Total Principal**			**-**	**-**	**-**	**-**	**428,716**	**437,291**	**517,889**	**528,247**	**538,812**	**549,588**	**560,580**	**571,791**	**583,227**
	Interest															
5	Existing Debt	CWCB	2017	-	100,842	347,844	347,844	347,844	339,270	330,524	321,603	312,504	303,223	293,756	284,100	274,251
6	Existing Debt	Enterprise	2017	-	-	-	-	-	-	58,298	56,861	55,396	53,900	52,375	50,820	49,233
7	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
8	**Total Interest**			**-**	**100,842**	**347,844**	**347,844**	**347,844**	**339,270**	**388,822**	**378,464**	**367,900**	**357,123**	**346,132**	**334,920**	**323,484**
	Principal + Interest															
9	Existing Debt	CWCB	2017	-	100,842	347,844	347,844	776,560	776,560	776,560	776,560	776,560	776,560	776,560	776,560	776,560
10	Existing Debt	Enterprise	2017	-	-	-	-	-	-	130,151	130,151	130,151	130,151	130,151	130,151	130,151
11	New Financing	CIP TBD	FY 2018/2019	-	-	-	-	-	-	-	-	-	-	-	-	-
12	**Total Principal + Interest**			**$ -**	**$ 100,842**	**$ 347,844**	**$ 347,844**	**$ 776,560**	**$ 776,560**	**$ 906,711**	**$ 906,711**	**$ 906,711**	**$ 906,711**	**$ 906,711**	**$ 906,711**	**$ 906,711**

Table D-4e
SECWCD Financial Strategy and Sustainability Study
Capital Improvement Project Projections - Hydroelectric Subfund

Line No.	Description	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Projected	FY 2021 Projected	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	Total
	CIP														
1	Hydroelectric (CWCB)	$ 7,577,659	$ 9,688,860	$ 894,880	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,161,399
2	Hydro retainment	-	-	860,944	-	-	-	-	-	-	-	-	-	-	860,944
3	TBD #1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	TBD #2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	TBD #3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	**Subtotal CIP**	**7,577,659**	**9,688,860**	**1,755,824**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**19,022,343**
7	**Total CIP (Inflated)**	**$ 7,577,659**	**$ 9,688,860**	**$ 1,755,824**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 19,022,343**

Appendix E
Cost of Service

SECWCD COST OF SERVICE ANALYSIS - INPUTS AND ASSUMPTIONS

Line No.	Description	Value
1	**Scenario Selection: Base Case - Existing Reserve Levels**	
	Water Allocation (20-Year Average)	
2	Allocated Acre-Feet	42,058
3	Total M&I Allocation	54.6%
4	Total Irrigation Allocation	45.4%
5	**Test Year**	2020

Note:
% = percent
M&I = municipal and industrial
No. - number

District Operations

Line No.	Description	FY 2020 Forecast	Distribution Both	Distribution Muni Only	Distribution Ag Only	Distribution Both	Total Forecast Muni Only	Total Forecast Ag Only
	Operation and Maintenance Expenses							
1	Human resources							
2	Staff payroll	$ 1,159,989	1			$ 1,159,989	$ -	$ -
3	Incentive/performance capacity	22,050	1			$ 22,050	$ -	$ -
4	Directors' payroll	37,800	1			$ 37,800	$ -	$ -
5	Payroll taxes	84,915	1			$ 84,915	$ -	$ -
6	HSA contributions	36,330	1			$ 36,330	$ -	$ -
7	401 retirement contribution	141,873	1			$ 141,873	$ -	$ -
8	457 retirement contribution	56,031	1			$ 56,031	$ -	$ -
9	Health insurance	126,149	1			$ 126,149	$ -	$ -
10	Life insurance - staff and directors	9,261	1			$ 9,261	$ -	$ -
11	Medical reimbursement	5,198	1			$ 5,198	$ -	$ -
12	Long-term disability insurance	7,497	1			$ 7,497	$ -	$ -
13	Employee assistance program	806	1			$ 806	$ -	$ -
14	Dental insurance	9,790	1			$ 9,790	$ -	$ -
15	Vision insurance	1,814	1			$ 1,814	$ -	$ -
16	Worker's compensation insurance	3,844	1			$ 3,844	$ -	$ -
17	Subtotal human resources	1,703,347				$ -	$ -	$ -
18	Headquarter operations					$ -	$ -	$ -
19	Administration fees for human resources	4,590	1			$ 4,590	$ -	$ -
20	Bank fees	1,020	1			$ 1,020	$ -	$ -
21	Board awards/gifts	1,057	1			$ 1,057	$ -	$ -
22	Board coffee snacks	-	1			$ -	$ -	$ -
23	Board memberships/subscriptions	8,900	1			$ 8,900	$ -	$ -
24	Board printing	547	1			$ 547	$ -	$ -
25	Board room presentation equipment and maintenance	2,754	1			$ 2,754	$ -	$ -
26	Board room accessories	316	1			$ 316	$ -	$ -
27	Board/committee meals	8,138	1			$ 8,138	$ -	$ -
28	Building heating/cooling	2,006	1			$ 2,006	$ -	$ -
29	Building other/misc. maintenance	2,643	1			$ 2,643	$ -	$ -
30	Building plumbing and electrical	2,378	1			$ 2,378	$ -	$ -
31	Building tools and equipment	212	1			$ 212	$ -	$ -
32	Computer - general contracts	29,260	1			$ 29,260	$ -	$ -
33	Computer - supplies	804	1			$ 804	$ -	$ -
34	Computer - hardware	11,836	1			$ 11,836	$ -	$ -
35	Computer - software and licenses	14,535	1			$ 14,535	$ -	$ -
36	Landscape maintenance - garden tools	-	1			$ -	$ -	$ -
37	Landscape - mower maintenance and fuel	-	1			$ -	$ -	$ -
38	Insurance - automobile	2,051	1			$ 2,051	$ -	$ -
39	Insurance - excess liability	3,105	1			$ 3,105	$ -	$ -
40	Insurance - general liability	13,987	1			$ 13,987	$ -	$ -
41	Insurance - property and liability	6,659	1			$ 6,659	$ -	$ -
42	Insurance - public official liability	1,585	1			$ 1,585	$ -	$ -
43	Legal notices	5,100	1			$ 5,100	$ -	$ -
44	Maintenance - backflow testing	2,708	1			$ 2,708	$ -	$ -
45	Maintenance - fire extinguisher	126	1			$ 126	$ -	$ -
46	Maintenance - janitorial services	3,551	1			$ 3,551	$ -	$ -
47	Maintenance - pest control	369	1			$ 369	$ -	$ -
48	Maintenance - waste disposal	2,040	1			$ 2,040	$ -	$ -
49	Maintenance - security	2,550	1			$ 2,550	$ -	$ -
50	Maintenance - snow removal	1,075	1			$ 1,075	$ -	$ -
51	Maintenance - window cleaning	1,163	1			$ 1,163	$ -	$ -
52	Maintenance - blacktop	5,496	1			$ 5,496	$ -	$ -
53	Office - equipment maintenance	1,876	1			$ 1,876	$ -	$ -
54	Office - coffee/snacks	1,057	1			$ 1,057	$ -	$ -
55	Office - copy machine color	6,630	1			$ 6,630	$ -	$ -
56	Office - general/staff memberships	7,829	1			$ 7,829	$ -	$ -
57	Awards and gifts - other	422	1			$ 422	$ -	$ -
58	Office - printing	3,240	1			$ 3,240	$ -	$ -
59	Office - publications and subscriptions	891	1			$ 891	$ -	$ -
60	Phone - cell	5,100	1			$ 5,100	$ -	$ -

Line No.	Description	FY 2020 Forecast	Distribution Both	Distribution Muni Only	Distribution Ag Only	Total Forecast Both	Total Forecast Muni Only	Total Forecast Ag Only
61	Phone - equipment maintenance	2,550	1			$ 2,550	$ -	$ -
62	Phone and internet	15,708	1			$ 15,708	$ -	$ -
63	Postage and shipping	3,944	1			$ 3,944	$ -	$ -
64	Staff awards and gifts	741	1			$ 741	$ -	$ -
65	Supplies - janitorial	528	1			$ 528	$ -	$ -
66	Supplies - office	2,661	1			$ 2,661	$ -	$ -
67	Supplies - paper	1,057	1			$ 1,057	$ -	$ -
68	Supplies - toner	1,603	1			$ 1,603	$ -	$ -
69	Utilities	21,136	1			$ 21,136	$ -	$ -
70	Utilities - airport fee	1,004	1			$ 1,004	$ -	$ -
71	Vehicle repair and maintenance - 2014 RAV4	1,321	1			$ 1,321	$ -	$ -
72	Vehicle repair and maintenance - 2010 Prius Gold	1,530	1			$ 1,530	$ -	$ -
73	Vehicle repair and maintenance - 2017 RAV4	1,321	1			$ 1,321	$ -	$ -
74	Web contracts	3,060	1			$ 3,060	$ -	$ -
75	Web hosting	1,137	1			$ 1,137	$ -	$ -
76	Landscape - aeration and weed control	-	1			$ -	$ -	$ -
77	Landscape - fertilizer and chemicals	2,610	1			$ 2,610	$ -	$ -
78	Landscape maintenance contracts	7,442	1			$ 7,442	$ -	$ -
79	Landscape - mulch, soil amendments	-	1			$ -	$ -	$ -
80	Xeriscape - plants and other	-	1			$ -	$ -	$ -
81	Landscape - sprinkler system repair and maintenance	-	1			$ -	$ -	$ -
82	Contingency - operating	51,000	1			$ 51,000	$ -	$ -
83	Subtotal headquarter operations	289,957				$ -	$ -	$ -
84	Meetings and travel					$ -	$ -	$ -
85	Directors - other travel (tip, fax, parking, telephone, etc.)	846	1			$ 846	$ -	$ -
86	Directors - other transportation (taxi, shuttle, rental)	-	1			$ -	$ -	$ -
87	Directors airfare	4,861	1			$ 4,861	$ -	$ -
88	Directors hotels	9,995	1			$ 9,995	$ -	$ -
89	Directors meals	2,346	1			$ 2,346	$ -	$ -
90	Directors meeting registrations	10,557	1			$ 10,557	$ -	$ -
91	Directors mileage reimbursement	13,739	1			$ 13,739	$ -	$ -
92	Executive - airfare	3,876	1			$ 3,876	$ -	$ -
93	Executive - district vehicle gas	1,057	1			$ 1,057	$ -	$ -
94	Executive - hotels	5,285	1			$ 5,285	$ -	$ -
95	Executive - meals	1,057	1			$ 1,057	$ -	$ -
96	Executive meeting registrations	3,417	1			$ 3,417	$ -	$ -
97	Executive - other travel expense	867	1			$ 867	$ -	$ -
98	Meeting expense	1,549	1			$ 1,549	$ -	$ -
99	Meeting meals - non staff member	647	1			$ 647	$ -	$ -
100	Staff business - airfare	13,566	1			$ 13,566	$ -	$ -
101	Staff business - district vehicle gas	4,942	1			$ 4,942	$ -	$ -
102	Staff business - hotels	18,595	1			$ 18,595	$ -	$ -
103	Staff business - meals	4,478	1			$ 4,478	$ -	$ -
104	Staff business - meeting registrations	15,759	1			$ 15,759	$ -	$ -
105	Staff business - other travel	1,346	1			$ 1,346	$ -	$ -
106	Staff certification - airfare	-	1			$ -	$ -	$ -
107	Staff certification - hotels	-	1			$ -	$ -	$ -
108	Staff certification - meals	-	1			$ -	$ -	$ -
109	Staff certification - other expense	-	1			$ -	$ -	$ -
110	Staff certification - registrations	1,785	1			$ 1,785	$ -	$ -
111	Staff education - hotels	-	1			$ -	$ -	$ -
112	Staff education - meals	-	1			$ -	$ -	$ -
113	Staff education - other travel	-	1			$ -	$ -	$ -
114	Staff education (general skills)	23,566	1			$ 23,566	$ -	$ -
115	Subtotal meetings and travel	144,135				$ -	$ -	$ -
116	Outside and professional services					$ -	$ -	$ -
117	Annual audit	51,000	1			$ 51,000	$ -	$ -
118	Consultant HR Breadbasket	10,200	1			$ 10,200	$ -	$ -
119	Consulting/lobbying services - federal	33,993	1			$ 33,993	$ -	$ -
120	Colorado River Services	22,440	1			$ 22,440	$ -	$ -
121	Legal representation	336,600	1			$ 336,600	$ -	$ -
122	Legal expense	22,440	1			$ 22,440	$ -	$ -
123	Water policy management consultants	25,500	1			$ 25,500	$ -	$ -
124	Engineering outside contracts	3,060	1			$ 3,060	$ -	$ -
125	Subtotal outside and professional services	505,233				$ -	$ -	$ -
126	Water conservation and education					$ -	$ -	$ -
127	Xeriscape garden tours	714	1			$ 714	$ -	$ -
128	Tours and anniversary events	12,240	1			$ 12,240	$ -	$ -
129	Sponsorships and exhibits	6,967	1			$ 6,967	$ -	$ -

Line No.	Description	FY 2020 Forecast	Distribution Both	Distribution Muni Only	Distribution Ag Only	Distribution Both	Total Forecast Muni Only	Total Forecast Ag Only
130	Xeriscape ed programs and publications	2,958	1			$ 2,958	$ -	$ -
131	Subtotal water conservation and education	22,879				$ -	$ -	$ -
132	**Total Operation and Maintenance Expenses**	**$ 2,665,550**			Totals	**$ 2,665,550**	**$ -**	**$ -**
					Percent	100%	0%	0%
	Recurring Capital							
133	Building Improvements (Indoor and Outdoor)	50,000	1			$ 50,000	$ -	$ -
134	Technology Improvements	50,000	1			$ 50,000	$ -	$ -
135	Fleet Replacement	-	1			$ -	$ -	$ -
136	Project and Programs	470,000	1			$ 470,000	$ -	$ -
137	**Total Recurring Capital**	**$ 570,000**			Totals	**$ 570,000**	**$ -**	**$ -**
					Percent	100%	0%	0%
138	**Total**	**$ 3,235,550**						

Line No.	Description	FY 2020 Forecast	Distribution Both	Distribution Muni Only	Distribution Ag Only	Distribution Both	Total Forecast Muni Only	Total Forecast Ag Only

Water Fund

Line No.	Description	FY 2020 Forecast	Distribution Both	Distribution Muni Only	Distribution Ag Only	Distribution Both	Total Forecast Muni Only	Total Forecast Ag Only
	Operation and Maintenance Expenses							
1	Headquarter operations							
2	Board/committee meals	$ 106	1			$ 106	$ -	$ -
3	Supplies - office	-	1			$ -	$ -	$ -
4	Subtotal headquarter operations	106				$ -	$ -	$ -
5	Meetings and travel					$ -	$ -	$ -
6	Directors airfare	7,609	1			$ 7,609	$ -	$ -
7	Directors hotels	10,087	1			$ 10,087	$ -	$ -
8	Directors meals	2,537	1			$ 2,537	$ -	$ -
9	Directors mileage reimbursement	1,480	1			$ 1,480	$ -	$ -
10	Executive - airfare	4,439	1			$ 4,439	$ -	$ -
11	Executive - hotels	5,601	1			$ 5,601	$ -	$ -
12	Executive - meals	1,690	1			$ 1,690	$ -	$ -
13	Executive - other travel expense	1,584	1			$ 1,584	$ -	$ -
14	Meeting expense	1,163	1			$ 1,163	$ -	$ -
15	Meeting meals - non staff member	1,163	1			$ 1,163	$ -	$ -
16	Staff business and training - district vehicle gas	5,812	1			$ 5,812	$ -	$ -
17	Staff business and training - hotels	2,220	1			$ 2,220	$ -	$ -
18	Staff business and training - meals	845	1			$ 845	$ -	$ -
19	Staff business and training - other travel	212	1			$ 212	$ -	$ -
20	Subtotal meetings and travel	46,441				$ -	$ -	$ -
21	Outside and professional services					$ -	$ -	$ -
22	Consultant/lobbying services - federal	78,819		1		$ -	$ 78,819	$ -
23	Colorado River Services	61,506	1			$ 61,506	$ -	$ -
24	Legal representation	12,841	1			$ 12,841	$ -	$ -
25	Water policy management consultants	59,571		1		$ -	$ 59,571	$ -
26	Engineering outside contracts	36,622	1			$ 36,622	$ -	$ -
27	Transit loss study expenses	2,938		1		$ -	$ 2,938	$ -
28	Research project support	28,462	1			$ 28,462	$ -	$ -
29	Project studies	-	1			$ -	$ -	$ -
30	Subtotal outside and professional services	280,759				$ -	$ -	$ -
31	Personnel and overhead					$ -	$ -	$ -
32	Office overhead	500,244	1			$ 500,244	$ -	$ -
33	Project directors allocation	24,602	1			$ 24,602	$ -	$ -
34	Project personnel	912,782	1			$ 912,782	$ -	$ -
35	Subtotal personnel and overhead	1,437,628				$ -	$ -	$ -
36	Partnerships					$ -	$ -	$ -
37	Safety of dams - Pueblo	-	1			$ -	$ -	$ -
38	USGS co-op programs	195,099	1			$ 195,099	$ -	$ -
39	RRPG project costs	135,000		1		$ -	$ 135,000	$ -
40	Subtotal partnerships	330,099				$ -	$ -	$ -
41	Other payments					$ -	$ -	$ -
42	AVC project contributions	20,000	1			$ 20,000	$ -	$ -
43	Reimbursement to other project/fund	1,858	1			$ 1,858	$ -	$ -
44	Subtotal other payments	21,858				$ -	$ -	$ -
45	**Total Operation and Maintenance Expenses**	**$ 2,116,892**			Totals	**$ 1,840,563**	**$ 276,328**	**$ -**
					Percent	87%	13%	0%
	Recurring Capital							
46	Reimbursement on district upfront capital expense	250,000	1			$ 250,000	$ -	$ -
47	Project and Programs	135,000	1			$ 135,000	$ -	$ -
48	**Total Recurring Capital**	**$ 385,000**			Totals	**$ 385,000**	**$ -**	**$ -**
					Percent	100%	0%	0%
49	**Total**	**$ 2,501,892**						

Notes:
% = percent
Ag = agriculture
AVC = Arkansas Valley Conduit
FY = fiscal year
Muni = municipality
USGS = U.S. Geological Survey
RRPG = Regional Resource Planning Group

SECWCD COST OF SERVICE ANALYSIS - UNIT COSTS OF SERVICE

Net Cost of Service - District Operations

Line No.	Description	2020 Total	Municipal/ Industrial	Irrigation
1	Operation and Maintenance	$ 2,665,550	$ 1,332,775	$ 1,332,775
2	Recurring Capital	570,000	285,000	285,000
3	Capital Investment	-	-	-
4	**Total Revenue Requirements**	**3,235,550**	**1,617,775**	**1,617,775**
5	*Distribution of Expenses (%)*		50%	50%
6	**Revenue Credits**			
7	Specific ownership taxes	(712,377)	(356,189)	(356,189)
8	Operating tax revenue	(305,531)	(152,765)	(152,765)
9	Xeriscape tour and material sales and other	(1,000)	-	(1,000)
10	Enterprise administration reimbursement*	(1,184,528)	(592,264)	(592,264)
11	Non operating revenues	(120,212)	(60,106)	(60,106)
12	Increase (Decrease) in Operating Reserves	(606,000)	(303,000)	(303,000)
13	**Total Revenue Credits**	**(2,929,648)**	**(1,464,324)**	**(1,465,324)**
14	*Distribution of Revenue (%)*		50%	50%
15	**Net Cost of Service**	**$ 305,903**	**$ 153,451**	**$ 152,451**
16	*Distribution of Net Cost of Service (%)*		50%	50%

Notes: * 20% of enterprise administration reimbursement is allocated to Hydro Project fund

Net Cost of Service - Water Fund

Line No.	Description	2020 Total	Municipal/ Industrial	Irrigation
1	Operation and Maintenance	$ 2,116,892	$ 1,196,610	$ 920,282
2	Recurring Capital	385,000	192,500	192,500
3	Capital Investment	1,071,000	1,071,000	-
4	Debt Service	60,000	30,000	30,000
5	**Total Revenue Requirements**	**3,632,892**	**2,490,110**	**1,142,782**
6	*Distribution of Expenses (%)*		69%	31%
7	**Revenue Credits**			
8	Return flow water sales	(44,820)	(22,410)	(22,410)
9	Well augmentation surcharge	(12,917)	(6,459)	(6,459)
10	Surcharge revenue	(578,649)	(289,325)	(289,325)
11	Aurora IGA - if & when WAE fee	(100,000)	(100,000)	-
12	Aurora IGA - administration fee	(50,000)	(50,000)	-
13	Partnership contributions	(110,000)	(110,000)	-
14	Participant payments	(357,941)	(357,941)	-
15	Non operating revenues	(381,508)	(190,754)	(190,754)
16	Increase (Decrease) in Operating Reserves	(1,702,000)	(1,166,610)	(535,390)
17	**Total Credits**	**(3,337,835)**	**(2,293,498)**	**(1,044,337)**
18	*Distribution of Revenue (%)*		69%	31%

19	**Net Cost of Service**	**295,057**	**196,612**	**98,445**
20	*Distribution of Net Cost of Service (%)*		67%	33%
21	**Net-Net Cost of Service (Both Funds)**	**600,959**	**350,063**	**250,896**
22	*Distribution of Net Cost of Service (%)*		58%	42%

Number of Units by Customer Class

Line No.	Description	Percent	Municipal/ Industrial	Irrigation
1	Fountain Valley Pipeline	25.45%	10,704	
2	Pueblo	10.00%	4,206	
3	West of Pueblo	4.27%	1,796	
4	East of Pueblo	12.73%	5,354	
5	Pueblo West Metro District	0.34%	143	
6	Manitou Springs	0.35%	147	
7	CSU Payback	1.45%	609	
8	Total Municipal Allocation	54.59%	22,960	
9	Total Ag Allocation	45.41%		19,098
10	**Total Number of Units**	**42,058**	**22,960**	**19,098**

Total Costs of Service

Line No.	Description	Total	Municipal/ Industrial	Irrigation
1	Operation and Maintenance	4,782,442	2,529,385	2,253,057
2	Recurring Capital	955,000	477,500	477,500
3	Capital Investment	1,071,000	1,071,000	-
4	Debt Service	60,000	30,000	30,000
5	Total Credits	$ (6,267,483)	$ (3,757,822)	$ (2,509,661)
6	**Total Costs of Service**	**600,959**	**350,063**	**250,896**

Total Unit Costs of Service ($/ac-ft)

Line No.	Description	Total	Municipal/ Industrial	Irrigation
1	Net-Net Cost of Service	600,959	350,063	250,896
2	Total Number of Units	42,058	22,960	19,098
3	**Unit Costs of Service - $/ac-ft**	**14.29**	**15.25**	**13.14**

Appendix F
Ability to Pay Report

Irrigator Ability-to-Pay

Final

August 2019

Southeastern Colorado Water Conservancy District

Executive Summary

The estimated ability-to-pay for irrigation Project Water is estimated to be $22.72 per acre-foot, as summarized in Table ES-1.

Table ES-1. Calculated Ability-to-Pay

Farm Cost and Revenue Categories	
Crop Revenues	$329,191
Less	
Crop production expenses	$182,436
Return to owner's equity	$33,572
Return to owner's management	$14,676
Return to family labor	$30,000
Equals	
Payment capacity per farm, or	$68,507
Payment capacity per acre	$142.72
Further	
Payment capacity per acre	$142.72
Water Supplies (assumed 3 AF/acre)	
AF from other suppliers	2
$/AF other suppliers	$60
Cost of alternative supply	$120
Ability-to-pay	
Remainder for project water	$22.72
AF from SECWCD	1
Ability-to-pay per AF of project water	$22.72

Irrigation ability-to-pay is estimated using the U.S. Bureau of Reclamation Technical Guidance for Irrigation Payment Capacity.[1]

[1] U.S. Department of the Interior, Bureau of Reclamation. 2014. Technical Service Center. Technical Guidance for Irrigation Payment Capacity. May.

Contents

Tables

1. Introduction

The Southeastern Colorado Water Conservancy District (Southeastern District or SECWCD) is estimating irrigators ability-to-pay as part of its current water rate study. The Southeastern District 2019 Project Water rate is $7 per acre-foot with additional surcharges for safety of dams, water activity, environmental stewardship, and augmentation. See Table 1 for a description of current water rates and surcharges. For this ability-to-pay study, only the water rate for irrigation customer project water is evaluated and follows the Reclamation guidelines for enterprise accounting.[2] The water rate for municipal customer project water and surcharges are not evaluated in this study.

The analysis method is to evaluate a representative farm of the Southeastern District based on crop mix and budgets for those regional crops. All revenues and expenditures apart from water purchases are included to calculate the capacity remaining to purchase water. Many farmers in the Southeastern District purchase water outside of the project water and those payments are removed from the capacity.

Table 1-1. Current Water Rates and Surcharges

Project Water Sales	Water Rate	Safety of Dams	Water Activity	Environmental Stewardship	Augmentation	Total Charge
Irrigation	$7.00	$0.50	$0.75	$0.75	-	$9.00
Municipal	$7.00	$0.50	$1.50	$0.75	-	$9.75

Source: SECWCD 2019 Adopted Budget

1.1 Ability-to-Pay Defined

Payment Capacity, or ability-to-pay, is defined as "Payment Capacity is the estimated residual net farm income of irrigators available for payment of both federally and non-federally assessed water costs, after deduction for on-farm production and investment expenses, as well as appropriate allowances for management, equity, and labor. The residual net farm income remaining after all farm revenues and expenditures are measured, except for water supply."[3] If farm water supply includes other sources than Bureau of Reclamation (Reclamation) water (alternative water supply), the cost of the alternative water supply is included in the ability-to-pay analysis. The total cost of alternative water supply reduces the ability-to-pay for project water. For the Southeastern District, farm use of alternative water supply is 2 acre-feet per acre. The cost per acre-foot of alternative water supply is $60 per acre-foot, resulting in $120 per acre total cost for alternative water supply ($60 acre-foot × 2 acre-feet per acre of alternative water supply = $120 per acre total cost for alternative water supply).

Ability-to-pay is equivalent to the irrigator payment capacity method used by Reclamation. As such, Reclamation's Technical Guidance for Irrigation Payment Capacity was used as a guideline.

1.2 Data Sources and Assumptions

Data source are identified throughout the analysis but generally consist of information from the Colorado State University (CSU) Extension Service and the U.S. Department of Agriculture (USDA) Economic Research Service. Additional information was provided from the District such as farm size and water purchased from other providers.

Assumptions are based on the best available data, consistent with Reclamation guidelines of utilizing 5-year historical averages. Certain data sets, such as land use data, are reported in 5-year intervals (2010 and 2015) and as such calculations are based upon the best available (recent 2 years) due to lack of data availability for other years. Data sources and years used for other calculations and assumptions are provided in the following sections.

[2] U.S. Department of the Interior, Bureau of Reclamation. 2004. *Technical Guidance for Irrigation Payment Capacity*. Technical Service Center. May.

[3] U.S. Department of the Interior, Bureau of Reclamation. 2005. *Technical Guidelines for Irrigation Suitability Land Classification.* Technical Service Center. June.

2. Description of a Representative Farm Operation

2.1 Farm Size and Ownership

The representative farm for the ability-to-pay analysis is assumed to have 480 acres of irrigated acres based on historical Southeastern District record. Table 2-1 summarizes the number of farms and acreages reported for under 960 acres and greater than 960 acres. Ownership of farmland (owned vs. leased) is assumed to be 71 percent owned and 29 percent leased based on Southeastern District provided data.

Table 2-1. Historical Farm Size

Year	Under 960 Acres			Great than 960 Acres		
	# of Farms	Total Acres	Average Farm Size	# of Farms	Total Acres	Average Farm Size
2014	364	129,075	355	96	97,424	1,015
2015	355	126,951	358	97	98,981	1,020
2016	346	125,883	364	82	83,220	1,015
2017	344	122,467	356	73	75,594	1,036
2018	334	120,053	359	75	76,765	1,024
2014–2018 Average	349	124,886	358	85	86,397	1,021
All District Farms Combined Average 2014–2018				**480 Acres**		

Source: Southeastern District RRA Forms (Form 7-21SUMM-C)

Note:

= Number

2.2 Crop Mix

Three years (2010, 2015, and 2016) of geographic information system data from Colorado's Decision Support Systems provided historical irrigated lands within the Southeastern District. Table 2-2 provides the acreage and total of percentage. For the analysis, only 2010 and 2015 were used due to 2016 data errors.

Table 2-2 Historical Crop Mix

Crop	2010	2015	Average	Percentage
Alfalfa	98,448	95,026	96,737	49%
Corn (Grain)	42,275	29,124	35,700	18%
Corn (Silage)	302	20	161	0%
Dry Beans	3,371	2,611	2,991	2%
Grass Pasture	24,170	37,412	30,791	16%
Sorghum	9,245	19,293	14,269	7%
Spring Grain	1,190	750	970	<1%
Sugar Beets	-	-	-	0%
Vegetables	2,123	1,472	1,798	1%
Fall Wheat	15,048	9,822	12,435	6%
Grand Total	196,172	195,531	195,852	100%

Note:

% = percent

Table 2-3 presents the proportions of each crop as a percentage of the representative farm cropping mix across the Southeastern District used in the analysis. Some crops did not move forward due to the low percentage of total or similarity to other crops. While Rocky Ford cantaloupes, Pueblo chiles, or other vegetables make up 1 to 2 percent of total crop mix, they were not included in the ability-to-pay analysis due to lack of crop budget information from the CSU Extension Service.

Table 2-3. Proportions Used in This Analysis

Alfalfa	Corn	Grass Pasture	Sorghum	Wheat	Total
50%	20%	16%	7%	7%	100%

2.3 Crop Yields, Prices, and Production Costs

Crop budget information from the CSU Extension Service provides historical yields, prices, and operating costs per acre for the representative farm cropping mix. The crop budgets from Southeast Colorado – alfalfa (Furrow Irrigation) 2009 and 2014–2017 were averaged to provide the values for alfalfa in Table 2-4. Similarly, corn crop budgets were available for 2015–2017; grass pasture from 2014–2017; sorghum from 2015–2017; and wheat from 2014–2017. These years reflect the information available and only certain crops were able to use 5-year averages.

Table 2-4. Crop Yields, Prices, and Production Costs

Crop	Alfalfa (ton)	Corn (bushel)	Grass Pasture (ton)	Sorghum (ton)	Wheat (bushel)
Yield/Acre	5.4	193.2	2.9	21.3	92.5
Price/unit	$151	$3.74	$147.75	$24	$4.49
Revenue/acre	$816	$723	$426	$512	$415
Operating Cost ($/acre)	$278	$565	$138	$167	$316
Acres in 480 Acre Farm	240	96	76.8	33.6	33.6
Crop Revenue	$195,908	$69,432	$32,708	$17,203	$13,939
Crop Operating Cost	$66,706	$54,277	$10,579	$5,606	$10,631
Total Farm Revenue	$329,191				
Total Farm Operating Cost	$147,799				

Note:

$/acre = dollar(s) per acre

Cost of production for certain crops vary by irrigation type (gravity vs. sprinkler). Comprehensive data on crop budget by irrigation type and historical use in the Southeastern District was not available to include cost differences in the ability-to-pay analysis.

Land ownership costs are calculated to determine additional costs that reduce the ability-to-pay for project water. Table 2-5 presents the proportion of land owned versus rented provided by the Southeastern District. Rental costs per acre were averaged over 2017 values for Bent, Chaffee, El Paso, Fremont, Otero, Prowers, and Pueblo counties from a CSU Extension Study (2018). Data were not available for Crowley and Kiowa counties in the study. Nationwide debt-asset and debt-equity ratios were collected from the U.S. Department of Agriculture Economic Research Service data and averaged for 2014–2018. The value of owned land is calculated from estimated cropland values of $3,000 to $4,580 per acre for Southeastern District. A $3,000 per acre irrigated cropland estimate for Kiowa and Otero counties from CSU Extension (2012) was also applied to Bent, Crowley, and Prowers counties. The 2014–2018 irrigated cropland estimated Colorado statewide value of $4,580 per acre was applied to Chaffee, El Paso, Fremont, and Pueblo counties (USDA, 2018). Pasture acreage across all counties was valued from the 2014–2018 Colorado statewide average of $760 per acre. An average of irrigated

acreage values by county and acreage in pasture resulted in a Southeastern District average value per acre of $3,232.

Table 2-5. Land Ownership and Cost Assumptions

Land	Owned	Rented
Proportion owned, leased	71%	29%
Rental Cost, less water assessment		$103
Land Rental Cost		$14,278
Assumed Value of Owned Land	$3,232 / acre	
Assumed Value of Owned Land (340 acres)	$1,101,466	
Debt-asset ratio	13%	
Equity in Land	$962,020	
Return to land equity at 3%	$28,861	
Land Debt	$139,446	
Assumed Land Payment, 6% over 30 years	$10,131	

Machinery and farm improvements are additional costs that reduce the ability-to-pay for project water.[4]

Table 2-6 Owner's Management and Equity

Items	Value
Machinery Value	$430,000
Equity in Machinery	
Debt-asset ratio on machinery	13%
Equity in machinery	$375,532
Machinery Debt	$54,438
Machinery Debt Payments, 7% over 10 years	$7,751
Improvements	
Buildings and Irrigation	$120,000
Equity in improvements	
Debt-Equity Ratio	15%
Equity in improvements	$102,600
Improvements debt	$17,400
Improvements debt payment, 7% over 10 years	$2,477
Return to equity on machinery and improvements	
Equity in machinery and improvements	$157,038
Return to equity on machinery and improvements at 3%	$4,711

[4] Table 6 has values for machinery and improvements have been adapted from recent Jacobs ability to studies.

3. Ability-to-Pay Calculation

The final ability-to-pay calculations are provided in Table 3-1. The footnotes detail the calculations and the tables to find each component. The total payment capacity per acre for water supply is $142.72. The $120 reduction in payment capacity per acre from cost of alternative supply ($60 acre-foot × 2 acre-feet per acre of alternative water supply = $120 per acre total cost for alternative water supply), the remaining payment capacity for project water is $22.72 ($142.72 total payment capacity per acre for water supply - $120 per acre alternative water supply = $22.72 payment capacity for alternative water supply). This ability-to-pay analysis assumes total applied water per acre is 3 acre-feet (1 acre-foot project water + 2 acre-feet alternative water supply). Therefore, the ability-to-pay for Southeastern District project water is $22.72 per acre-foot.

Table 3-1. Calculated Ability-to-Pay

Farm Cost and Revenue Categories	
Crop revenues	**$329,191**
Less	
Crop production expenses[a]	$182,436
Return to owner's equity[b]	$33,572
Return to owner's management[c]	$14,676
Return to family labor[d]	$30,000
Equals	
Payment capacity per farm, or	$68,507
Payment capacity per acre	$142.72
Further	
Payment capacity per acre	$142.72
Water Supplies (assumed 3 AF/acre)	
AF from other suppliers	2
$/AF other suppliers	$60
Cost of alternative supply	$120
Ability-to-pay	
Remainder for project water	$22.72
AF from SECWCD	1
Ability-to-pay per AF of project water	$22.72

[a] Crop production expenses include:
Total Farm Operating Cost (Table 4)
+ Land Rental Cost (Table 5)
+ Land Payment (Table 5)
+ Machinery Debt Payment (Table 6)
+ Improvements Debt Payment (Table 6)

[b] Return to owners' equity includes:
Return to land equity (Table 5)
+ Return to equity in machinery and improvements (Table 6)

[c] 10% of net farm income (crop revenues – crop production expenses)

[d] Source: NCWCD Ability-to-Pay Study (2014)

4. Summary and Conclusions

The estimated ability-to-pay for irrigation Project Water is $22.72 per acre-foot. This amount is comparable to the current $9.00 Total Charge for Project Water for irrigation customers. This ability-to-pay analysis for irrigation Project Water follows the U.S. Bureau of Reclamation guidelines using the best data available. Nevertheless, the values used in the calculations and final ability-to-pay amount is an estimate. With the thorough data collection, the estimate is provided with a high level of confidence. However, uncertainties do exist and are inherent in future crop prices, production costs, and yields. A follow-on analysis could evaluate the sensitivity of the calculated ability-to-pay to these uncertainties.

If the District were to base its irrigation charges on the irrigators' estimated ability-to-pay for irrigation water, as estimated through farm enterprise analysis, the District's Total Charge could increase from the current $9.00 per acre-foot to $22.72 per acre-foot.

5. References

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Appendix G
Projected Revenue at Proposed Rates

Table G-1. Projected District Revenue at Proposed Rates – Option 1 – Aggressive

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Project water sales	$601,000	$601,000	$601,000	$601,000	$601,000	$601,000	$601,000	$601,000	$601,000	$601,000	$6,011,000
Winter water storage (District portion)	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	1,226,000
Carry-over project water sales	--	367,000	735,000	1,102,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	1,470,000	11,025,000
Aurora IGA – If and When WAE fee	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
Surcharge revenue	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	5,780,000
Well augmentation surcharge	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	120,000
Return flow water sales	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	1,235,000
Total Projected Rate/Fee Revenue	**1,537,000**	**1,905,000**	**2,272,000**	**2,640,000**	**3,007,000**	**3,007,000**	**3,007,000**	**3,007,000**	**3,007,000**	**3,007,000**	**26,397,000**
Other Non-Rate Revenue (District Operations Subfund)	2,630,000	2,698,000	2,738,000	2,779,000	2,822,000	2,865,000	2,909,000	2,955,000	3,001,000	3,048,000	28,445,000
Other Non-Rate Revenue (Water Subfund)	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	8,994,000
Total Projected Revenue	**5,067,000**	**5,502,000**	**5,910,000**	**6,319,000**	**6,728,000**	**6,772,000**	**6,816,000**	**6,861,000**	**6,908,000**	**6,955,000**	**63,837,000**
Required Revenue (Both Funds)	**6,868,000**	**5,934,000**	**5,936,000**	**6,155,000**	**6,240,000**	**7,211,000**	**6,229,000**	**6,433,000**	**6,458,000**	**7,516,000**	**64,980,000**
% Difference Projected and Required Revenue	-36%	-8%	0%	3%	7%	-6%	9%	6%	7%	-8%	-2%

The total projected revenue from rates and fees over the Forecast Period is $26.4 million under Option 1 (aggressive). Including other non-rate revenue from the District Operations Subfund and the Water Subfund brings the total projected revenue over the Forecast Period to $63.8 million. This is compared against the required revenue for both the District Operations Subfund and the Water Subfund of $65.0 million, from Section 2, Financial Plan. The projected revenue is below the required revenue by 2 percent over the Forecast Period. The projected revenue is also below the required revenue in the first two years of the Rate Period but matches the revenue requirement in the third year of the Rate Period.

Table G-2. Projected District Revenue at Proposed Rates – Option 2 – Moderate

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Project water sales	$374,000	$457,000	$544,000	$636,000	$732,000	$732,000	$732,000	$732,000	$732,000	$732,000	$6,400,000
Winter water storage (District portion)	26,000	53,000	81,000	110,000	142,000	142,000	142,000	142,000	142,000	142,000	1,124,000

Table G-2. Projected District Revenue at Proposed Rates – Option 2 – Moderate

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Carry-over project water sales	--	158,000	486,000	998,000	1,706,000	1,706,000	1,706,000	1,706,000	1,706,000	1,706,000	11,879,000
Aurora IGA – if & when WAE fee	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
Surcharge revenue	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	5,780,000
Well augmentation surcharge	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	120,000
Return flow water sales	64,000	83,000	104,000	126,000	148,000	148,000	148,000	148,000	148,000	148,000	1,268,000
Total Projected Rate/Fee Revenue	**1,153,000**	**1,441,000**	**1,905,000**	**2,559,000**	**3,419,000**	**3,419,000**	**3,419,000**	**3,419,000**	**3,419,000**	**3,419,000**	**27,570,000**
Other Non-Rate Revenue (District Operations Subfund)	2,630,000	2,698,000	2,738,000	2,779,000	2,822,000	2,865,000	2,909,000	2,955,000	3,001,000	3,048,000	28,445,000
Other Non-Rate Revenue (Water Subfund)	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	8,994,000
Total Projected Revenue	**4,682,000**	**5,038,000**	**5,542,000**	**6,238,000**	**7,140,000**	**7,183,000**	**7,228,000**	**7,273,000**	**7,319,000**	**7,366,000**	**65,010,000**
Required Revenue (Both Funds)	**6,868,000**	**5,934,000**	**5,936,000**	**6,155,000**	**6,240,000**	**7,211,000**	**6,229,000**	**6,433,000**	**6,458,000**	**7,516,000**	**64,980,000**
% Difference Projected and Required Revenue	-47%	-18%	-7%	1%	13%	0%	14%	12%	12%	-2%	0%

The total projected revenue from rates and fees over the Forecast Period is $27.6 million under Option 2 (moderate). Including other non-rate revenue from the District Operations Subfund and the Water Subfund brings the total projected revenue over the Forecast Period to $65.0 million. Thus, the projected revenue meets the required revenue over the Forecast Period. However, due to the phased rate restructuring, the projected revenue is below the required revenue throughout the three-year Rate Period.

Table G-3. Projected District Revenue at Proposed Rates – Option 3 – Gradual

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Project water sales	$341,000	$391,000	$442,000	$497,000	$554,000	$614,000	$677,000	$743,000	$812,000	$885,000	$5,956,000
Winter water storage (District portion)	13,000	26,000	40,000	55,000	71,000	87,000	104,000	122,000	141,000	162,000	822,000
Carry-over project water sales	--	79,000	244,000	500,000	855,000	1,053,000	1,260,000	1,478,000	1,707,000	1,942,000	9,118,000
Aurora IGA – If and When WAE fee	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
Surcharge revenue	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	578,000	5,780,000

Table G-3. Projected District Revenue at Proposed Rates – Option 3 – Gradual

Description	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total
Well augmentation surcharge	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	120,000
Return flow water sales	55,000	66,000	78,000	90,000	103,000	116,000	130,000	145,000	161,000	177,000	1,122,000
Total Projected Rate/Fee Revenue	**1,100,000**	**1,253,000**	**1,495,000**	**1,832,000**	**2,273,000**	**2,560,000**	**2,861,000**	**3,179,000**	**3,512,000**	**3,855,000**	**23,919,000**
Other Non-Rate Revenue (District Operations Subfund)	2,630,000	2,698,000	2,738,000	2,779,000	2,822,000	2,865,000	2,909,000	2,955,000	3,001,000	3,048,000	28,445,000
Other Non-Rate Revenue (Water Subfund)	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	899,000	8,994,000
Total Projected Revenue	**4,629,000**	**4,850,000**	**5,132,000**	**5,511,000**	**5,994,000**	**6,325,000**	**6,670,000**	**7,033,000**	**7,412,000**	**7,803,000**	**61,359,000**
Required Revenue (Both Funds)	**6,868,000**	**5,934,000**	**5,936,000**	**6,155,000**	**6,240,000**	**7,211,000**	**6,229,000**	**6,433,000**	**6,458,000**	**7,516,000**	**64,980,000**
% Difference Projected and Required Revenue	-48%	-22%	-16%	-12%	-4%	-14%	7%	9%	13%	4%	-6%

The total projected revenue from rates and fees over the Forecast Period is $23.9 million under Option 3 (gradual). Including other non-rate revenue from the District Operations Subfund and the Water Subfund brings the total projected revenue over the Forecast Period to $61.4 million. Thus, the projected revenue falls below the required revenue over the Forecast Period by 6 percent. In addition, due to the phased rate restructuring, the projected revenue is substantially below the required revenue throughout the three-year Rate Period.

Appendix H
Benchmarking Survey Data

APPENDIX H: Benchmarking Survey Data

	Data and Metric Benchmarks	1 SECWCD FY ending Dec 31	2 NW-District FY ending Sept 30	3 NW+EF FY ending Sept 30	4 CAWCD FY ending Dec 31	5 SNWA FY ending June 30	6 CUWCD FY ending June 30	7 TRWD FY ending Sept 30	8 Denver Water FY ending Dec 31 All Water	9 Denver Water FY ending Dec 31 Raw Water Only	10 OID FY ending Dec 31	11 CNPPID FY ending Dec 31	MIN	MAX	Median	Mean
	Year Authorized	**1962**	1937	1937	1968	1992	1992	1924	1918	1918	1909	1933				
	Year Organized	**1958**	1933	1933	1971	1971/1991	1964	1924	1918	1918	1909	1935				
	Initial Project Authorization	**Federal**	Federal	Federal / Local	Federal	Federal	Federal	State of Texas	City of Denver	City of Denver	Non-Profit Agency	Federal				
	Authorizing Agency	**U.S. Bureau of Reclamation**	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	State of Texas	City of Denver	City of Denver	State of California	Public Works Administration				
	State	**Colorado**	Colorado	Colorado	Arizona	Nevada	Utah	Texas	Colorado	Colorado	California	Nebraska				
	Provide Water Treatment	**No**	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No				
	Flood Control	**No**	No	No	No	No	Partial	Yes	No	No	No	No				
1	**Bond Ratings**															
	Moody's	**Not Rated**	Not Rated	Not Rated	Aa2	Aa1	Aa1	Aa1	Aaa	Aaa	Not Rated	Not Rated				
	S&P	**Not Rated**	AA-	AA-	AA+	AA-	AA+	AAA	AAA	AAA	AA	Not Rated				
	Fitch	**Not Rated**	Not Rated	Not Rated	AA	Not Rated	AA+	AA	AAA	AAA	Not Rated	Not Rated				
2	**Employees**	**11**	100	114	484	439	90	122	1033	52	74	99	11	1033	100	238
3	**Water Deliveries (AF)**															
	FY 2014-15 (or 2015)	**67,500**	192,556	206,520	1,458,003	400,682	373,111	342,553	208,041	26,566	180,198	Not Available	26,566	1,458,003	207,281	345,573
	FY 2015-16 (or 2016)	**45,995**	209,976	221,270	1,435,905	413,729	380,984	340,826	221,314	21,752	184,682	Not Available	21,752	1,435,905	221,292	347,643
	FY 2016-17 (or 2017)	**46,371**	223,108	236,157	1,372,207	430,519	337,040	343,986	225,315	25,753	134,182	64,343	25,753	1,372,207	225,315	312,635
	Average or Best Estimate	**53,289**	208,547	221,316	1,422,038	414,977	363,712	342,455	218,223	24,690	166,354	64,343	24,690	1,422,038	218,223	318,177
	Assets ($millions)															
4	**Total Assets**															
	FY 2014-15 (or 2015)	**165.1**	161	257	2,090	5,239	1,228	1,824	2,433	604	183	175	161	5,239	604	1,305
	FY 2015-16 (or 2016)	**165.4**	171	271	2,166	5,806	1,256	2,336	2,579	626	208	183	165	5,806	626	1,433
	FY 2016-17 (or 2017)	**172.6**	177	281	2,200	5,801	1,272	2,356	2,847	615	222	186	173	5,801	615	1,466
5	**Current Assets**															
	FY 2014-15 (or 2015)	**32.2**	53.9	57.4	220.6	623.2	111.9	556.9	285.6	62.3	47.3	34.5	32	623	62	190
	FY 2015-16 (or 2016)	**32.5**	59.6	63.7	219.5	1066.5	116	840.9	333.7	65.1	64.8	36.3	33	1,067	65	264
	FY 2016-17 (or 2017)	**32.1**	67.1	72.7	263	1025.2	133.4	618.4	499.3	68.1	70.2	37.6	32	1,025	73	262
6	**Capital Assets**															
	FY 2014-15 (or 2015)	**133**	98	190	1,408	4,452	975	1,268	2,147	436	79	93	79	4,452	436	1,025
	FY 2015-16 (or 2016)	**132.9**	99	195	1,403	4,568	981	1,495	2,245	455	81	91	81	4,568	455	1,068
	FY 2016-17 (or 2017)	**140.5**	99	197	1,398	4,607	977	1,738	2,348	476	87	90	87	4,607	476	1,105
7	**Other Noncurrent Assets**															
	FY 2014-15 (or 2015)	**0.0**	9	9	461	164	142	0	0	106	57	48	0	461	48	90
	FY 2015-16 (or 2016)	**0.0**	12	12	544	172	159	0	0	106	63	56	0	544	56	102
	FY 2016-17 (or 2017)	**0.0**	11	11	540	168	162	0	0	71	65	58	0	540	58	99

	Data and Metric Benchmarks	1 SECWCD FY ending Dec 31	2 NW-District FY ending Sept 30	3 NW+EF FY ending Sept 30	4 CAWCD FY ending Dec 31	5 SNWA FY ending June 30	6 CUWCD FY ending June 30	7 TRWD FY ending Sept 30	8 Denver Water FY ending Dec 30 All Water	9 Denver Water FY ending Dec 31 Raw Water Only	10 OID FY ending Dec 31	11 CNPPID FY ending Dec 31	MIN	MAX	Median	Mean
	Liabilities ($millions)															
8	**Total Liabilities**															
	FY 2014-15 (or 2015)	**43.3**	22	31	1,482	3,603	800	1,397	525	137	35	44	22	3,603	137	738
	FY 2015-16 (or 2016)	**37.6**	21	33	1,570	4,050	785	1,842	614	142	39	43	21	4,050	142	834
	FY 2016-17 (or 2017)	**39.1**	18	29	1,595	3,936	765	1,785	798	139	39	41	18	3,936	139	835
9	**Current Liabilities**															
	FY 2014-15 (or 2015)	**11.9**	7	9	126	523	37	85	57	21	4	1	1	523	21	80
	FY 2015-16 (or 2016)	**12.2**	4	5	131	547	35	116	77	22	5	1	1	547	22	87
	FY 2016-17 (or 2017)	**8.3**	4	5	126	555	36	112	80	22	6	1	1	555	22	87
10	**Noncurrent Liabilities**															
	FY 2014-15 (or 2015)	**31.4**	15	23	1,356	3,080	763	1,311	468	116	31	43	15	3,080	116	658
	FY 2015-16 (or 2016)	**25.4**	17	28	1,438	3,503	749	1,726	538	120	33	42	17	3,503	120	747
	FY 2016-17 (or 2017)	**30.8**	14	24	1,469	3,381	728	1,673	718	118	33	40	14	3,381	118	748
	Revenues ($millions)															
11	**Total Revenues - Gross Receipts**															
	FY 2014-15 (or 2015)	**16.7**	32.4	34.1	296.8	410.0	119.3	147.4	259.2	7.7	13.8	28.7	8	410	34	124
	FY 2015-16 (or 2016)	**16.4**	35.5	37.6	300.1	480.9	114.0	149.1	293.5	8.4	35.9	29.1	8	481	38	136
	FY 2016-17 (or 2017)	**17.0**	37.6	39.9	344.4	489.4	118.1	161.7	308.6	9.0	28.4	24.3	9	489	40	143
12	**Operating Revenues**															
	FY 2014-15 (or 2015)	**8.3**	14.3	15.9	233.1	126.4	118.1	143.3	252.1	7.5	8.5	27.8	8	252	28	87
	FY 2015-16 (or 2016)	**8.0**	15.4	17.4	230.1	176.1	112.2	143.0	284.5	8.1	19.3	28.1	8	285	28	95
	FY 2016-17 (or 2017)	**8.5**	18.0	20.3	269.1	137.4	119.7	156.0	298.5	8.7	2.8	23.0	3	299	23	97
13	**Nonoperating Revenues**															
	FY 2014-15 (or 2015)	**8.3**	18.1	18.2	63.7	1.7	1.2	4.1	7.1	0.2	5.3	0.9	0	64	5	12
	FY 2015-16 (or 2016)	**8.4**	20.1	20.2	70.0	4.1	1.8	6.1	9.0	0.3	16.6	1.0	0	70	8	14
	FY 2016-17 (or 2017)	**8.6**	19.6	19.6	75.3	19.9	-1.6	5.7	10.1	0.3	25.6	1.3	-2	75	10	17
	Expenses ($millions)															
14	**Total Expenses**															
	FY 2014-15 (or 2015)	**16.1**	25.2	29.0	255.7	260.2	88.6	88.0	236.1	18.2	12.6	19.7	13	260	29	95
	FY 2015-16 (or 2016)	**16.2**	25.8	29.6	311.6	359.1	70.8	77.8	267.2	20.9	14.4	20.5	14	359	30	110
	FY 2016-17 (or 2017)	**16.5**	27.5	32.5	361.2	379.9	82.5	83.1	282.8	21.6	14.2	20.2	14	380	33	120
15	**Operating Expenses**															
	FY 2014-15 (or 2015)	**16.1**	23.6	27.3	230.3	203.3	88.6	70.2	215.8	16.5	11.1	19.6	11	230	27	84
	FY 2015-16 (or 2016)	**16.2**	24.8	28.6	286.7	225.8	70.8	60.7	247.5	19.0	13.2	20.5	13	287	29	92
	FY 2016-17 (or 2017)	**16.5**	27.5	31.5	318.3	263.9	82.5	63.5	256.0	19.6	13.1	20.2	13	318	32	101
16	**Non Operating Expenses**															
	FY 2014-15 (or 2015)	**0.0**	1.6	1.7	25.4	56.9	0.0	17.8	20.3	1.7	1.5	0.1	0	57	2	12
	FY 2015-16 (or 2016)	**0.0**	1.0	1.0	24.9	133.3	0.0	17.1	19.7	1.9	1.2	0.0	0	133	1	18
	FY 2016-17 (or 2017)	**0.0**	0.0	1.0	42.9	116.0	0.0	19.6	26.8	2.0	1.1	0.0	0	116	1	19
	Debt ($millions)															
17	**Long Term Debt Outstanding**															
	FY 2014-15 (or 2015)	**23.9**	10	14	1,230	2,954	762	1,229	375	54	28	0	0	2,954	54	607
	FY 2015-16 (or 2016)	**17.8**	9	16	1,251	3,263	745	1,654	454	65	30	0	0	3,263	65	682
	FY 2016-17 (or 2017)	**22.9**	8	14	1,215	3,080	726	1,604	636	91	29	0	0	3,080	91	675
18	**Debt Service**															
	FY 2014-15 (or 2015)	**5.7**	1.6	2.0	26.7	167.8	45.1	74.2	47.9	6.8	2.1	0.0	0	168	7	35
	FY 2015-16 (or 2016)	**5.8**	1.6	2.0	26.7	222.8	44.5	71.7	40.1	5.7	2.1	0.0	0	223	6	38
	FY 2016-17 (or 2017)	**6.0**	1.6	2.0	31.1	265.4	44.0	87.4	43.7	6.2	2.1	0.0	0	265	6	45
19	**Assessment per AF (M&I)**	**$7**	$60	$60	$160	$303	$64	$413	NA	$319	$465	$38	7	465	112	189
	Assessment per AF (Agriculture)	**$7**	$36	$36	$61	$303	$64	$250	NA	$205	$10	$38	7	303	50	101

	Metric Benchmarks	1 SECWCD FY ending Dec 31	2 NW-District FY ending Sept 30	3 NW+EF FY ending Sept 30	4 CAWCD FY ending Dec 31	5 SNWA FY ending June 30	6 CUWCD FY ending June 30	7 TRWD FY ending Sept 30	8 Denver Water FY ending Dec 30 All Water	9 Denver Water FY ending Dec 31 Raw Water Only	10 OID FY ending Dec 31	11 CNPPID FY ending Dec 31	MIN	MAX	Median	Mean
	Metrics Per Acre-Foot ($millions)															
20	**FTEs per thousand-acre-ft delivered**	**0.20**	0.48	OMIT	0.34	1.06	0.25	0.35	OMIT	2.11	0.44	1.54	0.20	2.11	0.44	0.75
21	**Assets per Acre-Foot**															
	FY 2014-15 (or 2015)	**$ 3,098**	$ 773	OMIT	$ 1,470	$ 12,625	$ 3,377	$ 5,327	OMIT	$ 24,450	$ 1,101	$ 2,715	$ 773	$ 24,450	$ 3,098	$ 6,104
	FY 2015-16 (or 2016)	**$ 3,104**	$ 818	OMIT	$ 1,523	$ 13,992	$ 3,454	$ 6,821	OMIT	$ 25,371	$ 1,250	$ 2,843	$ 818	$ 25,371	$ 3,104	$ 6,575
	FY 2016-17 (or 2017)	**$ 3,239**	$ 848	OMIT	$ 1,547	$ 13,978	$ 3,498	$ 6,881	OMIT	$ 24,909	$ 1,337	$ 2,883	$ 848	$ 24,909	$ 3,239	$ 6,569
22	**Liabilities per Acre-Foot**															
	FY 2014-15 (or 2015)	**$ 813**	$ 105	OMIT	$ 1,042	$ 8,683	$ 2,200	$ 4,078	OMIT	$ 5,538	$ 210	$ 681	$ 105	$ 8,683	$ 1,042	$ 2,594
	FY 2015-16 (or 2016)	**$ 706**	$ 102	OMIT	$ 1,104	$ 9,759	$ 2,158	$ 5,379	OMIT	$ 5,747	$ 232	$ 664	$ 102	$ 9,759	$ 1,104	$ 2,872
	FY 2016-17 (or 2017)	**$ 734**	$ 85	OMIT	$ 1,122	$ 9,484	$ 2,104	$ 5,212	OMIT	$ 5,642	$ 234	$ 640	$ 85	$ 9,484	$ 1,122	$ 2,806
23	**Debt per Acre-Foot**															
	FY 2014-15 (or 2015)	**$ 449**	$ 49	OMIT	$ 865	$ 7,119	$ 2,095	$ 3,589	OMIT	$ 2,170	$ 167	$ -	$ -	$ 7,119	$ 865	$ 1,834
	FY 2015-16 (or 2016)	**$ 334**	$ 43	OMIT	$ 879	$ 7,862	$ 2,048	$ 4,830	OMIT	$ 2,631	$ 179	$ -	$ -	$ 7,862	$ 879	$ 2,090
	FY 2016-17 (or 2017)	**$ 430**	$ 36	OMIT	$ 855	$ 7,423	$ 1,997	$ 4,684	OMIT	$ 3,684	$ 173	$ -	$ -	$ 7,423	$ 855	$ 2,142
24	**Revenue/Receipts per AF**															
	FY 2014-15 (or 2015)	**$ 313**	$ 155	OMIT	$ 209	$ 988	$ 328	$ 430	OMIT	$ 312	$ 83	$ 445	$ 83	$ 988	$ 313	$ 363
	FY 2015-16 (or 2016)	**$ 307**	$ 170	OMIT	$ 211	$ 1,159	$ 313	$ 435	OMIT	$ 338	$ 216	$ 452	$ 170	$ 1,159	$ 313	$ 400
	FY 2016-17 (or 2017)	**$ 320**	$ 180	OMIT	$ 242	$ 1,179	$ 325	$ 472	OMIT	$ 364	$ 171	$ 378	$ 171	$ 1,179	$ 325	$ 403
25	**Total Expenses per acre-ft delivered**															
	FY 2014-15 (or 2015)	**$ 301**	$ 121	OMIT	$ 180	$ 627	$ 244	$ 257	OMIT	$ 737	$ 76	$ 306	$ 76	$ 737	$ 257	$ 316
	FY 2015-16 (or 2016)	**$ 304**	$ 124	OMIT	$ 219	$ 865	$ 195	$ 227	OMIT	$ 845	$ 87	$ 319	$ 87	$ 865	$ 227	$ 354
	FY 2016-17 (or 2017)	**$ 310**	$ 132	OMIT	$ 254	$ 915	$ 227	$ 243	OMIT	$ 874	$ 85	$ 314	$ 85	$ 915	$ 254	$ 373
	Financial Ratios															
26	**Assets-to-Liabilities Ratio**															
	FY 2014-15 (or 2015)	**3.8**	7.4	OMIT	1.4	1.5	1.5	1.3	OMIT	4.4	5.2	4.0	1.31	7.39	3.81	3.40
	FY 2015-16 (or 2016)	**4.4**	8.0	OMIT	1.4	1.4	1.6	1.3	OMIT	4.4	5.4	4.3	1.27	8.04	4.28	3.58
	FY 2016-17 (or 2017)	**4.4**	9.9	OMIT	1.4	1.5	1.7	1.3	OMIT	4.4	5.7	4.5	1.32	9.93	4.41	3.87
27	**Debt-to-Assets Ratio**															
	FY 2014-15 (or 2015)	**0.14**	0.06	OMIT	0.59	0.56	0.62	0.67	OMIT	0.09	0.15	0.00	0.00	0.67	0.15	0.32
	FY 2015-16 (or 2016)	**0.11**	0.05	OMIT	0.58	0.56	0.59	0.71	OMIT	0.10	0.14	0.00	0.00	0.71	0.14	0.32
	FY 2016-17 (or 2017)	**0.13**	0.04	OMIT	0.55	0.53	0.57	0.68	OMIT	0.15	0.13	0.00	0.00	0.68	0.15	0.31
28	**Operating Ratio**															
	FY 2014-15 (or 2015)	**0.96**	0.73	OMIT	0.78	0.50	0.74	0.48	OMIT	2.14	0.80	0.68	0.48	2.14	0.74	0.87
	FY 2015-16 (or 2016)	**0.99**	0.70	OMIT	0.96	0.47	0.62	0.41	OMIT	2.27	0.37	0.70	0.37	2.27	0.70	0.83
	FY 2016-17 (or 2017)	**0.97**	0.73	OMIT	0.92	0.54	0.70	0.39	OMIT	2.18	0.46	0.83	0.39	2.18	0.73	0.86
29	**Current Ratio**															
	FY 2014-15 (or 2015)	**2.7**	8.0	OMIT	1.7	1.2	3.0	6.5	OMIT	2.9	13.5	28.8	1.19	28.75	3.02	7.61
	FY 2015-16 (or 2016)	**2.7**	14.5	OMIT	1.7	1.9	3.3	7.3	OMIT	3.0	12.5	40.3	1.67	40.33	3.30	9.68
	FY 2016-17 (or 2017)	**3.9**	18.1	OMIT	2.1	1.8	3.7	5.5	OMIT	3.2	11.7	34.2	1.85	34.18	3.87	9.35
30	**Current Assets as a Percent of Revenues**															
	FY 2014-15 (or 2015)	**1.9**	1.7	OMIT	0.7	1.5	0.9	3.8	OMIT	8.1	3.4	1.2	0.74	8.08	1.66	2.59
	FY 2015-16 (or 2016)	**2.0**	1.7	OMIT	0.7	2.2	1.0	5.6	OMIT	7.8	1.8	1.2	0.73	7.79	1.81	2.68
	FY 2016-17 (or 2017)	**1.9**	1.8	OMIT	0.8	2.1	1.1	3.8	OMIT	7.6	2.5	1.5	0.76	7.57	1.88	2.56

Notes to Benchmarking Data

1 Bond Rating. Most recently available.

2 Water Deliveries. Hydropower water "deliveries" are not included in total water deliveries.

3 Total Revenues. Includes capital contributions for SNWA.

4 Total Capital Assets. Net of depreciation and amortization.

5 Employees - as reported. On an FTE basis, if available.

6 **General Notes**
Sums may not add due to rounding.
Any hydropower revenue or power production related data PPID, LCRA, etc., has been removed to the extent feasible.
All values are reported in 2017 unless otherwise specified.
CUWCD excludes the Jordanelle Hydropower Enterprise Fund.

7 **Northern Water**
NW+EF is Northern Water and Subdistrict Enterprise Funds combined.

8 **Denver Water**
Denver Water data is based on Source of Supply statistics. Where source of supply statistics were not available (e.g., debt outstanding), the data was derived assuming a proportionate basis to Denver Water as a whole.
Number of employees for Operations and Maintenance is Division is 57. Plus a proportion of other all other departments (10.75% *561).
Assets include source of supply assets (provided by Denver Water), water rights assets as other noncurrent assets, and an amount of total current assets in proportion to source of supply assets value (or 14.3 of total current assets).
Liabilities are in the same proportion to the total as assets.
Operating Revenues are total non potable sales.
Nonoperating revenues are a percent of total nonoperating revenues based on non potable sales (operating revenues) as a percent.
Debt is 14.3% of capital assets.
Expenses as reported for Source of Supply, plus 7% of G&A Expense.

9 **CUWCD**
Water deliveries excludes hydropower deliveries and instream flows.

Appendix I
2020 Water Rate Resolution

CERTIFIED RESOLUTION AND ORDER DETERMINING THE RATE OF WATER, STORAGE, SURCHARGE, AND FEES TO BE ASSESSED TO THE SALE OF ALL TYPES OF WATER ALLOCATED BY THE SOUTHEASTERN COLORADO WATER ACTIVITY ENTERPRISE.

RESOLUTION AND ORDER NO. 2019-01E

WHEREAS, it is the duty of the Board of Directors of the Southeastern Colorado Water Activity Enterprise, an enterprise of the Southeastern Colorado Water Conservancy District (formed under C.R.S. 37-45.1-101, *et. seq.*), in each year to determine the amount of rates and fees to be assessed in the next water year.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Southeastern Colorado Water Activity Enterprise hereby adopts the water rate and surcharges as approved by final Board action November 21, 2019, and,

BE IT RESOLVED, the Board of Directors of the Southeastern Colorado Water Activity Enterprise hereby approves and adopts the below rate and fee schedule. This schedule increases the Project water rate for both municipal and irrigation entities from $7.00 to $13.14 per acre-foot. This schedule also increases the Return Flow rate for both municipal and irrigation entities from $6.00 to $12.00 per acre-foot.

Description	2020 Rates and Surcharges ($/ac-ft) (as of 11/21/2019)					
	Proposed Water Rate ($)	Safety of Dams ($)	Water Activity ($)	Environmental Stewardship ($)	Augmentation ($)	Proposed Total Charge ($)
Project Water Sales						
Irrigation	13.14	0.50	0.75	0.75	--	15.14
Municipal	13.14	0.50	1.50	0.75	--	15.89
Project Water Sales used for Well Augmentation						
Irrigation used for Well Augmentation	13.14	0.50	0.75	0.75	2.60	17.74
Municipal used for Well Augmentation	13.14	0.50	1.50	0.75	2.60	18.49
Storage Charges						
Winter Water Storage*	2.80	0.25	--	0.75	--	3.80
Carry-Over Project Water	--	1.00	1.25	0.75	--	3.00
If and When Storage						
In District	--	0.50	0.50	0.75	--	1.75
Out of District	--	2.00	4.00	0.75	--	6.75
Aurora	--	--	10.00	--	--	10.00
Project Water Return Flows						
Irrigation	12.00	0.50	--	0.75	--	13.25
Municipal	12.00	0.50	--	0.75	--	13.25

STATE OF COLORADO)
COUNTY OF PUEBLO) §

I, Bill Long, President of the Southeastern Colorado Water Activity Enterprise, do hereby certify the foregoing is a true and correct copy of Resolution and Order passed and adopted in a regular meeting of the Board of Directors of the Southeastern Colorado Water Activity Enterprise, held on December 5, 2019, determining the rate of all water sales and storage assessments by the Southeastern Colorado Water Activity Enterprise.

Bill Long, President

ATTEST:

James W. Broderick, Assistant Secretary-Treasurer